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越南市場線上團購行為之驅動因素

Driving factors of Online Group Buying intention in Vietnam

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ABSTRACT

Recently, online group buying (OGB) is developing rapidly and impressively in Vietnam as a new type of online shopping. The aim of this report is to investigate the driving factors of Vietnamese customer behaviors toward using OGB services. In this thesis, a quantitative research with the survey questionnaire as a base is applied. This study employed various statistical methods, such as frequencies, reliability test (cronbach's alpha), validity test (EFA), linear regression to evaluate the relationship among key factors.

This paper empirically derives dimensions influence consumer purchasing intention toward OGB and the results describe Technology acceptance model which has been considerably used to predict customer behavior with focus on two important factors: perceived ease of use and perceived usefulness. Supported by literature review, the study extends TAM via adding more external variables, namely service quality and perceived risk which are predicted to have noticeable impact on OGB intention, as previously found in studies of e-commerce and online shopping. In particular, social influence is defined as moderator role in this report. Data collected from 205 valid respondents in Hanoi and Hochiminh were tested against the extended TAM with the application of using SPSS software version 21. The result strongly supported the role of perceived usefulness, perceived ease of use and service quality in predicting users' intention to adopt OGB and indicated important role of social influence in turning customer intention toward OGB. By contrast, the role of perceived risk is not significant for using OGB. This study not only suggests OGB websites vendors in Vietnam utilizing marketing communication tools to pay attention to the importance of social influence on both OGB intention and perceived ease of use, but also improving personalized service in order to enhance perceived usefulness as well.

ACKNOWLEDGEMENT

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Nguyen Thanh Phuong

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CHAPTER 1: INTRODUCTION

The beginning of the thesis starts with an introduction which will cover the author's motivation about the topic entitled "driving factors of online group buying (OGB) intention in Vietnam"; then followed by section of research objectives. At the end of the introduction section the thesis structure is presented.

1.1 Research motivation and background

In the past, most of purchasing transactions were simply carried out by face-to-face methods and customers have to physically go to the stores to purchase commodities; however, since the explosion of the Internet in 1990s, e-commerce gradually transformed people's shopping habits to a great extent. The e-commerce sector has rapidly emerged with its diversified applications and kept showing its vigorous energy. The market scale of worldwide e-commerce was at top 1.2 trillion USD in 2012 with 903.6 million of digital buyers and this number is predicted to climb up to 1,015.8 million; 1,124.3 million and 1,228.5 million in 2013, 2015 and 2016 respectively (New Global Estimates by eMarketer).

The advent of e-commerce has led to the birth of many new internet-based selling models. There are several opportunities for buyers to form coalitions on Internet; among of them, group buying is one of the fastest growing e-commerce trends today. Group buying drives customers to get considerable lower prices by encouraging them to participate in a large group to purchase merchandise. A very original idea of group buying is to gain discount prices from retailers when a large number of buyers could be formed into a group, and now the same concept is widely adopted by many websites worldwide ((Eren and Mesut, 2011).). Meanwhile, e-commerce market in Vietnam has been also influenced by this form of group buying, significantly with

numerous new online shopping websites launched and the growing speed is getting faster than ever. The first OGB site entrance was phagia.com (an important partner of phununet.com, a social network for women in Vietnam) which appeared for the first time in June 2010 created an underground river to the field of electronic commerce Vietnam. According to action.vn, OGB model has been seen as a balloon inflated around three years ago in Vietnam, but it is now relatively flat and gradually transformed to survive despite of the current dismal sales declines of Groupon, the first group buying model in the world. Also, based on the Saigontimes (the famous economic papers in Vietnam) in August 13, 2013, the revenue of OGB in May and June 2013 reflects relatively higher returns due to the growing market demand for food, resort and travel deals, compared to the first quarter of 2013. Being inspired from the fast growing of OGB in Vietnam, in combination with the personal interest in both marketing and OGB topic, the author decides to write the graduation thesis relevant to OGB with the aim at examining the driving factors of Vietnamese customer intention toward OGB.

1.2 Research Objective

The purpose of this study is to explore factors affecting customer intention to use OGB to purchase merchandises. This paper begins with the customer behaviors theory and Technology Acceptance Model (TAM) then the TAM is extended to other external variables such as service quality, perceived risk and social influence to investigate customer buying intention. Thus, the objective of this Master thesis is to find out the answer to the key question “What are the driving factors of OGB intention in Vietnam?” However, in order to get a comprehensive answer for this topic, the sub-issues are indispensable parts in my thesis Investigating how TAM model with two dimensions of perceived usefulness and perceived ease of use impact customer attitude and customer intention toward OGB

- i. Investigating how Technology acceptance model with two dimension of perceived usefulness and perceived ease of use impact attitude and customer intention toward OGB
- ii. Exploring how to incorporate other external variables into Technology acceptance model so as to predict consumers purchasing intention toward OGB
- iii. Identifying the moderating role of social influence on the relationship among perceived usefulness, perceived ease of use, service quality and perceived risk and OGB intention

1.3 Research structure

With the aim of carrying out this research, an overall review of specialized literature which focuses on customer behavior in e-commerce and online group buying context will be first proceeded to figure out relevant aspects of customer purchase intention toward OGB. After that, the author presents a new framework, its results and discussion thereon. Finally, it will be concluded with the managerial implications for practice, pointing out the limitations of this study and making suggestions for future research.

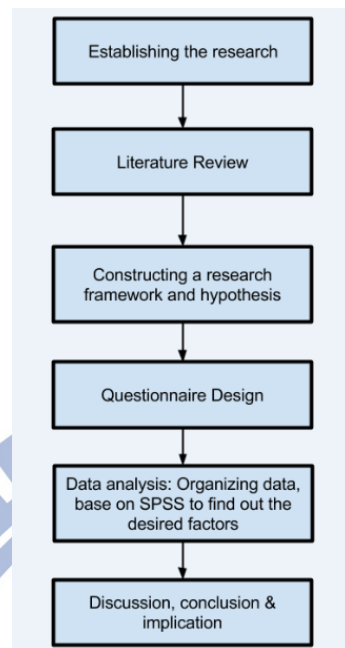


Figure 1: Proposed research structure

The data are collected from various sources, including primary data and secondary data. The primary data will be gathered through the quantitative data, questionnaires. The secondary data will be collected from market analysis reports, industry analysis reports, the white book, web analysis data and yearbooks published by government or official organizations. A final conclusion will be given is taken after the processed data is synthesized.

CHAPTER 2: OVERVIEW OF B2C ECOMMERCE AND ONLINE GROUP BUYING IN VIETNAM

2.1 Overview of B2C e-commerce in Vietnam

There is a huge source of data indicating the percentage of access users participating in online shopping in which a positive sign and an upward trend of this business have been well seen recently in Vietnam. According to the survey of VISA in 2012, 71% of respondents purchased online and 90% of them said that they would do in the future. The data from VISA shows the most optimistic signal of Vietnamese e-commerce in comparison with the rate of 65%, 58% and 35% of AITA, IDC and CIMIGO respectively.

Research organization	Rate
Visa International Service Organization (VISA)	71%
Applied Information Technology Agency (AITA) - Ministry of Information and Communication	65%
Information Development Company (IDC)	58%
Customer Insight Markets Insights Group Indigo (CIMIGO)	35%

Figure 2: Rate of internet users participating in online shopping through a variety of research sources

Moreover, Vietnam population is expected to stand at 93 million people and the percentage of internet users over population could reach 40% - 45% by the end of 2015. The Veitnamese B2C e-commerce revenue in 2012 reached 0.7 billion US dollar and based on the current status of

Vietnamese infrastructure and the forecasted statistics, this number likely jump to \$1.36 billion in 2015 (Vietnam E-commerce report 2012; The Statistics Portal: statista.com)

2.2 Overall environment of Vietnamese e-commerce

Since the two-year implementation of Prime Minister's Decision No. 1073/QD-TT, the Master Plan on E-commerce Development for the 2011-2015 periods, Vietnam has witnessed significant improvements in infrastructure and legal framework of e-commerce. The following parts introduce an overall of e-commerce environment in Vietnam, including but not limited to information technology & communication infrastructure, media platform & social network, logistics services infrastructure, online payment platform and education.

2.2.1. Information Technology and Communications Infrastructure

Internet

The statistic data from the Vietnam Internet Network Information Center (VNNIC) notified that at the end of July 2011, the number of Vietnam's internet user base gained 29.507 million, accounting for around 30% of the national population and it is predicted to climb to 35.641.000 and 36.108.000 for the two following years of 2014 and 2015 respectively

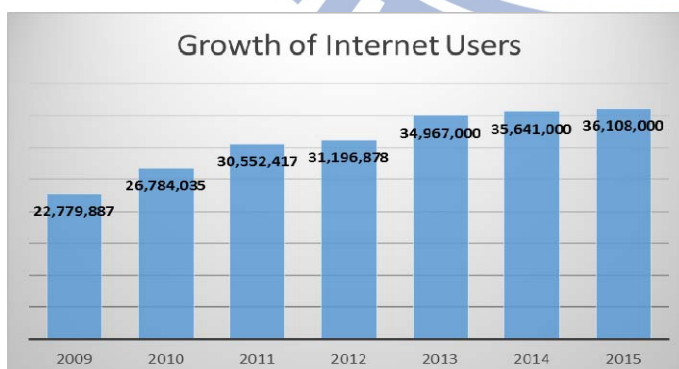


Figure 3: Growth of internet users

Sources: Vietnam Internet Network Information Center (VNNIC)

In addition, the result of the survey with 3,405 respondents (from 15 to 64 years old) conducted by CIMIGO in 2012 indicated that the average amount of time a user spending on the internet per day was around 130 minutes and the rates of users accessing the internet daily (per week) and sometimes per week accounted for 68% and 24% respectively. Meanwhile, only 1% of respondents said that they had access to the Internet once a month and 4% of them did not often use the Internet.

Broadband

At the end of 2010, there were 3.63 million fixed broadband subscribers in Vietnam, which gave the country a broadband penetration rate of 4.1% and positioned Vietnam at the mid-point of regional broadband penetration, behind China and the Philippines (Sources VNNIC, BMI). With regard to the wireless internet access telephone technologies, it remains a difficult task to assess the exact size of this market. Based on Wireless Broadband Master Plan, the number of 2G mobile operators was around 8 million subscribers in 2009 and 10 million in 2010 whereas the number of 3G was 5 million for both 2009 and 2010 year, respectively.

The popularity of electronic means (User's devices)

The period from 2008 to 2011 saw a rapid growth in the number of desktop and laptop computers used in Vietnam, from 4,478,500 in 2008 to 5,899,830 in 2011 and the number of household owing a computer was on the increasing trend from with 3,095,791 in 2009 to 3,831,397 in 2011.

	2009	2010	2011
--	------	------	------

No of desktop, laptop computers	4,880,800	5,319,000	5,899,833
Personal computers per 100 habitants	5.63	6.08	6.68
Number of household with a computer	3,095,759	3,371,051	3,831,397

Figure 4: Number of personal computers

Source: The White Book 2012 of Viet Nam Information and Communication Technology

In 2012, the mobile market continued to speed up considerably to 10% and brought the total number of subscribers to 132.637 million. Especially, the number of mobile subscribers is forecasted to 144.882 million mobile subscribers in Vietnam, a 156.1% penetration rate by the end of 2015.

	2009	2010	2011	2012	2013f	2014f	2015f
No of mobile phone subscribers ('000)	98,224	112,691	123,960	132,637	139,269	143,447	144,882
No of 3G phone subscribers ('000)	1,500	7,500	8,400	9,576	11,012	12,334	13,567

Figure 5: Number of mobile phone & 3G subscribers

f: estimated/forecast. Source: International Telecommunication Union (ITU), BMI, MIC

In general, the current status of information technology as well as communications infrastructure is evaluated to be fairly qualified for the B2C e-commerce growth in Vietnam. In addition to this, thanks to a bright signal for the improvement in e-commerce infrastructure in coming years, the forecasted number of mobile subscribers will be 156.5million by the end of 2017, occupying a

166.3% penetration rate; more importantly, the total broadband subscribers will rise to 5.4 million at that period. However, the launch of a 4G network in Vietnam will be postponed until 2015, as the government strategy is keen for 3G services to improve the quality first (basing on the data from Vietnam Telecommunications Report Published 28 June 2013).

2.1.2 Media expand

Since 2006, the activities of propagating e-commerce knowledge to consumers have both intensified and expanded. The mass media and enterprises are the pioneers in these activities including Vietnam Television (VTV), Voice of Vietnam (VOV) and Vietnam Digital Television (VTC) that have developed their own programs specializing in information technology and e-commerce.

With its national radio coverage, VOV also played an active role in propagating knowledge related to e-commerce. The program “Informatics and Life” broadcasted everyday on VOV1 has brought many e-commerce related issues to listeners across the country. Besides, VTV is the active channel to spread knowledge about e-commerce and information technology in Vietnam. Programs such as “Digital life” of VTV1 and “Digital Space” of VTV2 have reached its popularity nationwide including the content of data privacy protection, information security in the banking sector.

Another important channel of propagation is newspapers, which also expresses considerable interests about information technology and e-commerce. Thanks to such magazines specializing in information technology as PC World, Digital World, Informatics and Life, Digital Mart, Digital Power, etc., readers can have access to concrete and in-depth information of e-commerce related issues.

As for awareness-raising activities, State regulatory agencies and professional-social organizations frequently hold competitions and award prizes related to e-commerce for those who can give birth to more new ideas that contribute to the e-commerce development process, such as the E-commerce Gold Cup by the Vietnam Association of Informatics, Sao Khue prize by the Vietnam Software Association, etc.

2.1.3. Supply chain infrastructure

To support the development of e-commerce, it is necessary to establish a supportive logistics infrastructure and smooth distribution channels from the sellers to the buyers in a convenient, fast and efficient way. This means there is a need of a highly connected postal services network that could reach residential areas with a low cost. Postal parcel delivery services market has opened up and rapidly diversified since 2007 with the number of enterprises operating in these sectors steadily growing over the years in Vietnam; for example, reaching 70 enterprises in total in October 2012 (statistical data from Ministry of Information and Communications). Also, demand for transportation and freight forwarding services is becoming strong due to huge volumes of materials and finished goods that need to be transported. However, the logistics industry in Vietnam is actually still in its infancy with the process of procurement of goods and materials, means of transportation, storage and delivery as well are not commonly carried out in an integrated manner.

According to the Logistics performance index, Vietnam was last reported at the medium position within 5th out of ASEAN bloc and 53rd out of 155 countries with 3.00 points (Basing on LPI 2012, World Bank report published in 2012). Despite having a slight improvement in terms of quality of trade & transport-related infrastructure, ease of arranging shipments, delivery on

schedule (timeliness), tracking and tracing since 2007 to 2012; the quality of efficiency of customs clearance process & logistics quality and competence show a downward trend, which more and less lay an impact on the e-commerce performance in Vietnam. Thus, the transportation service sector as a whole in Vietnam is still relatively unwell developed.

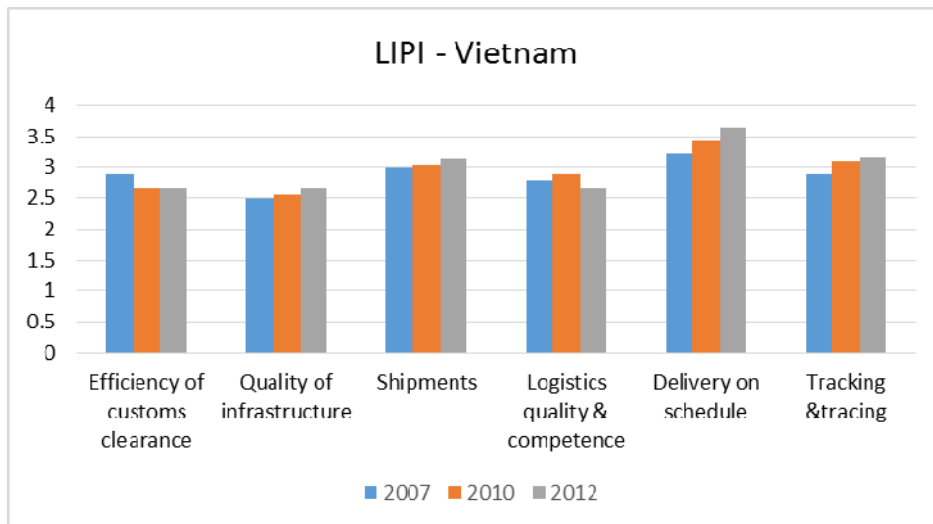


Figure 6: Vietnamese logistics performance index

Source: Logistics Performance Index 2007, 2010, 2012. World Bank

2.1.4. Payment infrastructure

According to the statistic of the State Bank of Vietnam (SBV), the proportion of cash payment in the total payment methods has declined over years (from 31.6% in 1991 to 14.2 % in 2010 and 11.8% in September 2012). This factor is an important premise for the development of electronic payment service in Vietnam.

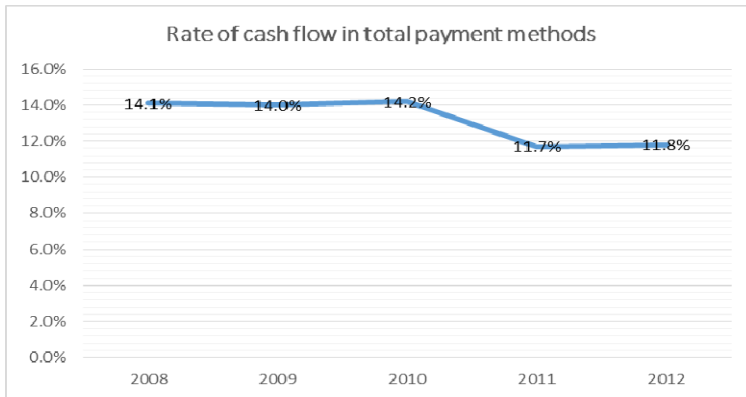


Figure 7: Rate of cash flow payment methods

Source: The state of Vietnamese bank

Bank cards have been becoming a popular means of payment in Vietnam with the rapid pace of development. By the end of June 2012, the number of issued bank cards reached 47.22 million, of which about 94% were debit cards.

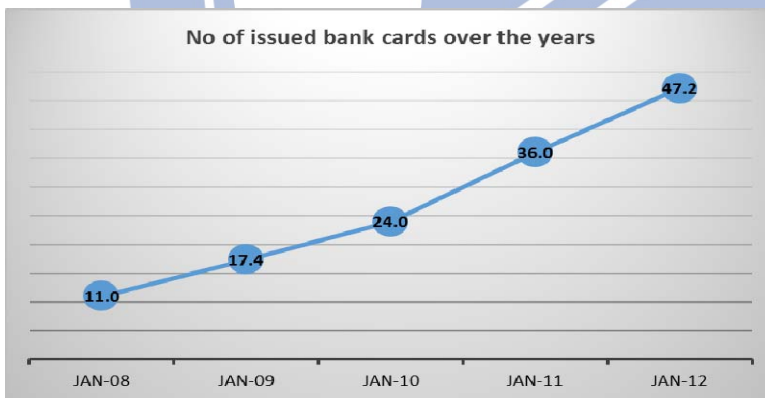


Figure 8: Number of issued bank card since 2008 to 2012

Source: The state of Vietnamese bank

2.1.5. Education

Formal training activities on e-commerce have started since the years of 2003-2004 in Vietnam. The survey of VECITA conducted in 2012 showed an increase in the total number of academic organizations offered e-commerce training and the results, from 49 in 2008 to 88 university and colleges in 2012.

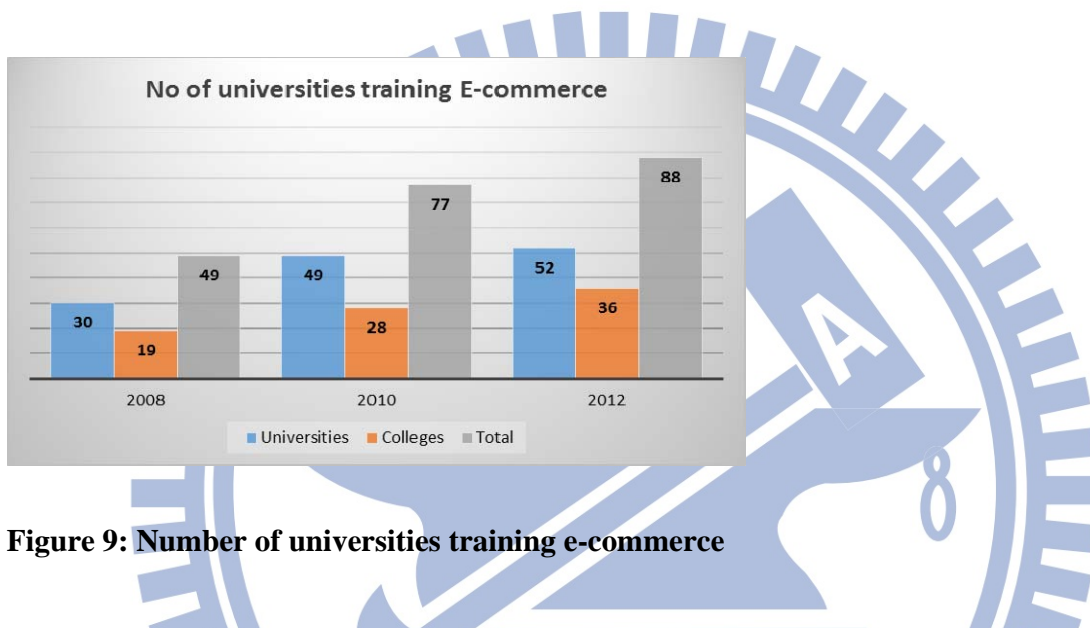


Figure 9: Number of universities training e-commerce

Source: Vietnamese e-commerce 2012

The leaders of universities express their consideration of expanding and developing e-commerce training, however, universities are facing some obstacles in the preparation of training expansion such as lecturers, training programs, teaching materials and the e-commerce field code, etc.

2.3. Group Buying Concept

Group buying is known as one of the fastest growing e-commerce trends, it drives customers to purchase products or services at considerable lower prices by encouraging them to participate in a large group. Although there are many different kinds of group buying model; however among of them, the dynamic pricing and the stable pricing are two main types of group buying existing

now (Eren and Mesut 2011). A common characteristic is that the seller offers discounted group rates to encourage individual customers make a purchase according to buying groups. Group-buy operators seek to aggregate disparate buyers who can operate remotely and asynchronously via the Web by providing them with price-based incentives for volume purchases. However, each type of group buying still has its own characteristics. First, in the dynamic pricing mechanism, a large number of consumers with similar purchase interests are pooled online, from a virtual coalition to bargain collectively with the sellers, it can reduce the transaction cost of each side (Lai, 1999). By forming a coalition, buyers can advantageously negotiate with sellers and buy merchandises at volume discount prices based on the number of pooled buyers (Yamamoto & Sycara, 2001). Thus, each potential buyer is willing to make an effort to expand the buying group size to increase the likelihood of getting a lower price. Compared to the traditional individuals selling strategies, the seller of this group buying type can use a group-buying discount as a technique to “hire” informed customers who work as “sales agents” to motivate novice customers to participate in the group (Jing and Xie 2011). In other words, group buying as a mechanism to encourage interpersonal information and knowledge sharing. This model looks for a high profit margin by selling a volume strategy through selling a high sales volume by charging a lower price. The seller may use a discounted group price, together with a group size requirement in order to motivate informed customers to disseminate product information to less-informed new customers (Jing and Xie, 2011). To entice buyers, the seller offers to sell at the discounted unit price and maybe drops lower each if more units are demanded. In effect, quantity discounts are offered, not on an individual customer’s order, but on the total of all customer orders.

The later type with stable pricing system is what this thesis refers to. This type offers a certain product or service at a large discount amount but the price is static and does not decrease when the number of consumers increases (Erdogmus & Cicek, 2011). There are three parties in in this group buying type; the suppliers, the websites (as the vendor or brokers) and the customers. The website acts as an intermediary to connect suppliers and customers. However, the discount price is only applied when the total number of the buyers who buy the deal is greater than the predetermined limit of the minimum required number of buyers.

2.4. Overview of Online Group Buying in Vietnam

Along with the rapid development of the Internet, in the context of electronic commerce, the growing speed of online group buying in Vietnam is very fast. According to Vu Hong Quang, a representative of the Southern VC Corp which is the parent company of the group-buying site muachung.com, there were almost 20 OGB sites in Vietnam in 2011; however, only five big players dominated this market at that time; namely, nhommua.com; muachung.vn; muare.vn, cucre.vn; 51deal.vn. After just 7 months of operation, the two main competitor's nhomua.com and muachung.vn already had 100,000 members while some of the newer sites owned around 60,000 members. The year of 2012 witnessed the high growth of five leading group-buying mode in B2C e-marketplaces (Vietnam e-commerce 2012).

No	OGB Sites	Data	Increasing rate
1	Nhommua	No of members	(+)15%
		No of successful transactions	(+) 16%
		Total value of successful transactions	(+) 29%

No	OGB Sites	Data	Increasing rate
		Total revenue	(+) 13%
2	Muachung	No of members	(+) 55%
		No of successful transactions	(+) 75%
		Total value of successful transactions	(+) 70%
		Total revenue	(+) 70%
3	Muare.vn	No of members	(+) 33%
		No of successful transactions	N/A
		Total value of successful transactions	N/A
		Total revenue	(+) 9%
4	Cucre.vn	No of members	(+) 50%
		No of successful transactions	(+) 435
		Total value of successful transactions	(+) 38%
		Total revenue	(+) 38%
5	51deal	No of members	(+) 62%
		No of successful transactions	(+) 305
		Total value of successful transactions	(+) 67%
		Total revenue	(+) 82%

Figure 10: Increasing rate of 5 leading e-marketplaces by group-buying mode

Source: Vietnamese e-commerce 2012

Similar to the online group buying market in USA, websites like 50% off daily news provide one-stop-shop pages and play as pure information aggregators, making profit from online advertisement and network traffic directing. The first OGB site entrance was phagia.com (an important partner of phununet.com, a social network for women in Vietnam) which appeared for the first time in June 2010, after that created an underground river to the field of electronic commerce Vietnam. Secondly, the birth of 'nhommua.com' that was established in July 2010 has witnessed the registered users of 100,000 members and other OGB sites such as cungmua.com, muachung.vn, hotdeal.com have also caught the attention of many people and its effect on customers' buying intention is enormous.

Until by the end of 2012, nhommua.com was ranking at the top based on traffic reaching the number of 6.7 million page views. According to Alexa ranking and Google Ad Plan May 2011, with the commitment to offer more and more diversified products with the best quality, nhommua.com is positioned for a very promising 2nd half of 2013 and 2014 thanks to its largest market share in 2012 and its outstanding achievements in the first 6 months of 2013 in Vietnam. The second position belongs to muachung.vn (literally means buy together) with the number of page views reaching 2.4 million and that of visitors of 670.000 (asiadigitalmap 2011). Nhommua.com and muachung.vn are ranked at the second and the third position in the top 10 leading e-marketplaces in Vietnam

No	E-commerce places	Market shares
1	Chodientu.vn	35%

2	nhommua.com	15%
3	muachung.vn	12%
4	enbac.com	10%
5	solo.vn	10%
6	123mua.vn	6%
7	5giay.vn	4%
8	muare.vn	3%
9	rongbay.com	2%
10	az24.vn	1%

Figure 11: Market share according to the revenue of 10 leading e-marketplaces in 2012

Sources: Vietnamese e-commerce 2012

In summary, in spite of still having some obstacles supply chain infrastructure, education quality for e-commerce development in long run, however, the overall environment of Information Technology and Communications Infrastructure, especially the internet, broadband and the popularity of electronic means have been in relatively good preparation for the general practice of online commerce and OGB. OGB is becoming the new trend for Vietnamese shopping activities and it is supposed to contribute significantly to Vietnamese B2C e-commerce revenue in coming years.

CHAPTER 3: LITERATURE REIVEW

3.1 Research on customer behavior in e-commerce context

The thesis aims at conducting researches about the factors affecting customer intention toward OGB, thus, theory of customer behavior in e-commerce context and Technology Acceptance Model are seen as the primary theory for this thesis.

Many theoretical and empirical researches show the strong correlation among customer attitude and customer intention to actual behavior. Theory of planned behavior Azjen derived from theory of reasoned action (TRA) (Fishbein & Ajzen 1975) provides a behavior explanation of the importance of attitudes on a prospective buyer's decision-making process. Azjen (1991) considers the influence, restrictions, and behavioral belief on adoption decision to describe the positive relationship between customer attitude and behavioral intentions. He showed that attitudes toward the behavior; subjective norms with respect to the behavior and perceived control over the behavior were usually found to predict behavioral intentions with a high degree of accuracy (Azjen 1991).

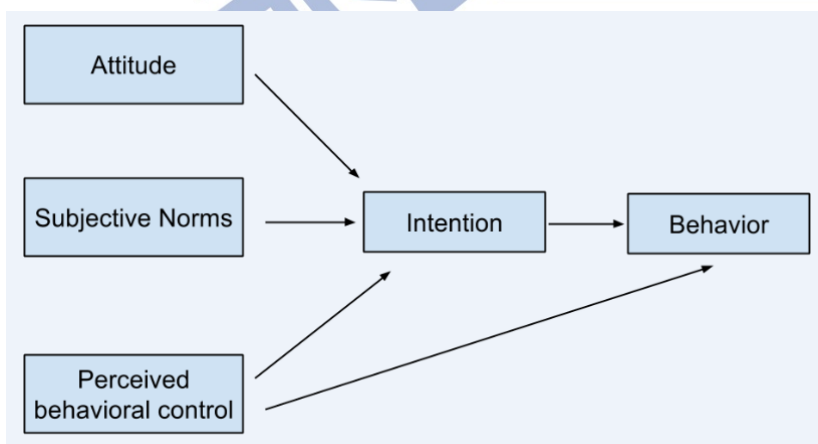


Figure 12: The theory of planned behavior

Source: Theory of planned behavior , Ajzen, 1991

Via modifying the planned behavior, Anol Bhattacharjee (2000) found that attitude, subjective norm and behavioral control play a very significant role in explaining intentions to accept e-commerce services; accordingly he modified the theory of planned behavior as below:

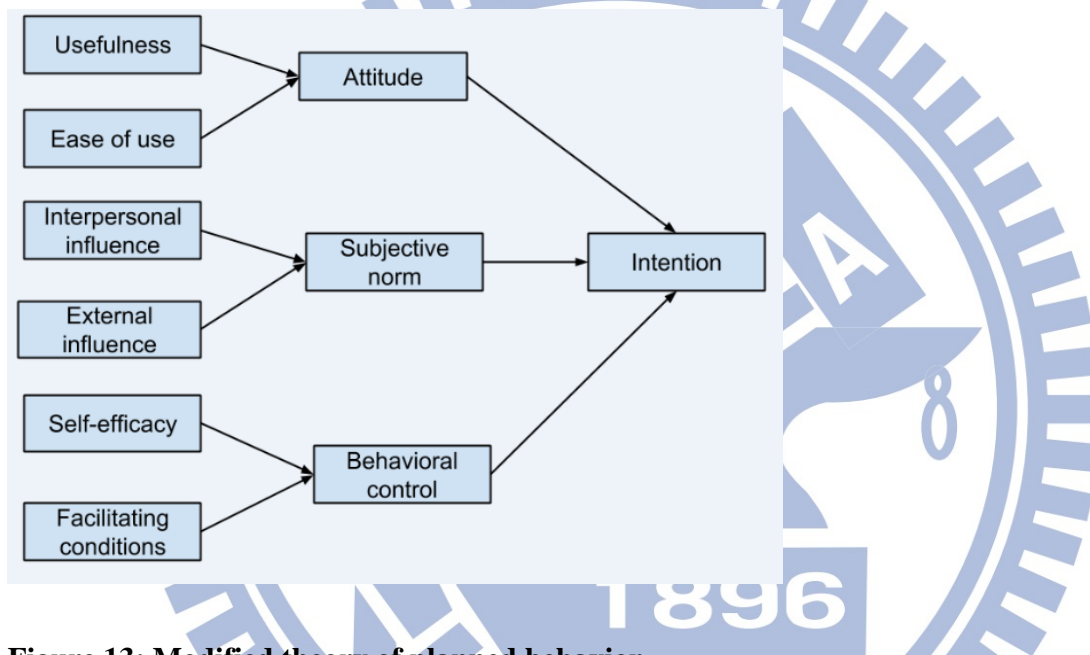


Figure 13: Modified theory of planned behavior

Source: Bhattacharjee (2000)

Customer's attitude that is believed to influence shopping intention refers to the acceptance of customers toward a specific internet store and considering the internet as a shopping channel (Jahng et al. 2001). Customers' intention for online shopping relates to their willingness to perform purchasing action in an internet store and it affects customer's decision making and purchasing behavior.

3.2 Research on Technology Acceptance Model (TAM)

One of the most popular models applied in the study of adoption of technology acceptance is Technology Acceptance Model (TAM). The TAM model (Davis, 1989) with its basis in Theory of Reasoned Action (TRA) is a favored theory for explaining adoption of new IT. TAM proposed that both the perceived usefulness (PU) and perceived ease of use (PE) affect customer attitude toward using a new technology, which in turn affects the behavioral intention to use the actual system directly (Davis, 1989).

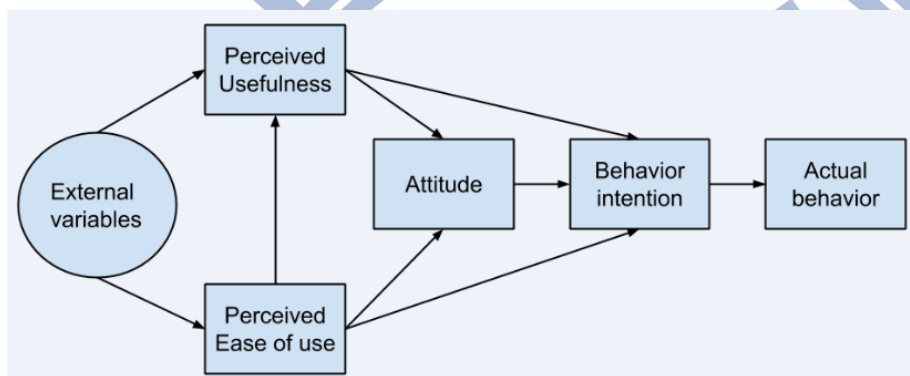


Figure 14: Technology Acceptance Model

Source: Davis et al. (1989)

The TAM studies adoption of innovation technology first then it has been successfully applied in internet-related technologies acceptance due to its solid theoretical foundation, such as in e-healthcare (Lanseng and Andreassen, 2007), e-government (Phang et al., 2005; Sahu and Gupta, 2007) and mobile commerce (Wanget al., 2006). Also, this model has often been considered the most influential and extensively applied theory for understanding consumers' purchase intentions in ecommerce (Tong, 2010). A number of recent studies have successfully adopted TAM to study the acceptance of internet related technologies such as Chen, Gillenson & Sherrell (2002), Koufaris, Kambil & LaBarbera (2002), Lin & Lu (2000), Liet al. (2006).

Since OGB is the web system based and an internet-related technology, it is seen as new business model in e-commerce. Thus, using TAM (Figure 15) is most suitable as the basis for investigating consumer behavior toward OGB.

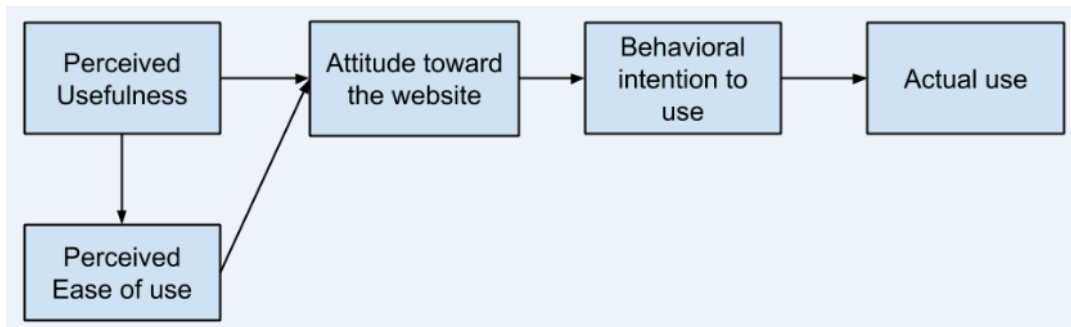


Figure 15: Technology Acceptance Model of attitude toward the use in e-commerce

Source: Chen, Gillenson and Sherrell 2002

Thus, in this thesis, an OGB attitude is defined as an individual belief and acceptance, considering OGB as a shopping channel, as well as this, OGB intention refers to the degree to which an individual believes they will be willing to use OGB to buy products.

Moreover, Tsai & Chen (2011) has successfully found that both perceived usefulness (PU) and perceived ease of use (PE) in TAM have positive and direct effect on behavioral intentions in OGB. Thus, for OGB buyers, they will adopt OGB if they believe that this type of model will bring benefits such as time saving, getting the best deal, or find more information about a product. As well as this, if the purchasers feel that OGB is easy to interact and do not require much effort to make transaction on it, the tendency to use OGB as an online shopping method will be higher.

In this thesis, planned behavior, TAM model is used as the basic research to find out the factors affecting customer's intention toward OGB.

Application	Author
Attitude, subjective norms and behavioral control have a significant and positive effect on behavior.	Ajzen (1991)
Customer acceptance and use of virtual store can be predicted from their intention, which is determined by their attitude toward using virtual stores.	Bhattacharjee (2000)
Perceived usefulness (PU) and perceived ease of use (PE) have an impact on customer attitude and customer intention in technology acceptance	Davis (1989); Venkatesh & Morris (2000)
Perceived usefulness (PU) and perceived ease of use (PE) are the primary determinants of customer attitude toward using the virtual stores	Bhattacharjee (2000); Chen, Gillenson & Sherrell (2002) Leo (2003); Tong (2010)
Perceived usefulness (PU) and perceived ease of use (PE) have an impact on customer attitude and customer inattention toward using OGB	Tsai & Chen (2011); Chang, Lee & Su (2011)

3.3 Research on external variables of TAM

There are a large number of studies confirming the validity and implication of TAM as a parsimonious model in many technology - related (Davis 1989); in e-commerce (Tong 2010; Ha and Stoel, 2009) and in OGB contexts (Tsai & Chen 2011; Chang, Lee & Su 2011), however, only two factors perceived usefulness and perceived ease of use of TAM may not enough to capture many other hidden influencing factors on consumers' behavior towards OGB such as price (Pi, Liao, Liu & Lee 2011), gender, online shopping experience (Tong, 2010), service

quality, social and cultural factors (Cheng and Huang (2012), website quality, personal innovativeness, discount rate, and perceived risks (Javadi, 2012; Tsai & Chen 2011). All these factors are regarded as the determinants of the consumers' buying intention in a group-buying context as well.

In the past, most studies considered that the price factor mostly affects the purchase intention (Anand and Aron, 2003; Li et al., 2004; Chen et al., 2009; Li et al., 2010), especially in OGB, price is known as the obvious influence customer behaviors toward OGB. Customers come with the site because they can make a purchase with an acceptable discount price. The more discount price rises, the more customers are attracted, and also their satisfaction increases. However, the consumers consider not only the price factor, but the service quality, attitudes, the reference group and other factors. Therefore, this study tries to investigate factors influencing consumer intentions in online group-buying with the basis of rational action theory and TAM model.

Also, social influence was found to be an important factor in determining technology adoption (Glass and Li, 2010). OGB buyers will normally take the recommendations, warnings and comments that appear on relevant virtual communities into consideration before making a purchase. Such virtual communities as the main source of social influence will influence online shopping decisions. Therefore, since the focus of this study is OGB, it follows that the idea of the social influence should be taken into consideration when modeling OGB behavior.

External variable of TAM model literature review

Application	Author
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Service Quality (SQ) has an effect on customer attitude and customer intention toward online shopping	Albert & Tung (1994);
Service Quality (SQ) has an impact on customer attitude and customer inattention toward using OGB	Erdogmus & Cicek (2011); Cheng & Hoang (2012); Tsai & Chen (2011)
Perceived risk has been shown to negatively influence consumers' intention to shop online	Liang & Jin-Shiang (1998); Tan (1999); Xiao Tong (2010); Bhatnagar (2000); Ruyter (2001) Feathermana & Pavlou (2003); Javadi (2012); Forsythe & Shi (2003); Biswas & Biswas (2004).
Perceived risk (PR) has an impact on OGB attitude and OGB intention	Tsai & Chen (2011); Erdogmus & Cicek (2011)
Social influence (SI) has a positive effect on online shopping, OGB intention	Tsai & Chen (2011); Cheng & Hoang (2012)

3.4. Developing hypothesis

The OGB is a new business type in Vietnam, therefore, from a long time searching relevant to OGB topics, the author has learnt that there is no significant quantitative publications about Vietnamese customer behaviors towards OGB intention. There are some articles have examined the use of TAM and other additional factors impacts online shopping or OGB intention in China,

Hongkong, Taiwan, Turkey and so on, however, a few researches are done to study the factors influence Vietnamese intention to online shopping or OGB. There is one article titled “Vietnamese consumers’ intention to online shopping adoption” was conducted by Ho and Chen published in the Asian journal of social sciences & humanities proposed the intergraded model of TAM, social norm and customer’s trust in order to explain consumer’s adopting intention online shopping, however, this research only use the qualitative approach to understand of technology belief (TAM), customer trust, social norm belief to explain Vietnamese online shopping intention. Also, this journal does not take the role of other external variables of TAM in Vietnamese buying intention toward online shopping. Such studies relating factors influencing Vietnamese customer intention toward online shopping and OGB by employing the quantitative approach hardly have been found until now.

In addition, the author found the article titled “Online Group Buying: What Is There for the Consumers” that the author Erdogmus & Cicek (2011) used a qualitative method to study the effect of demographics, service quality and price on customer intention toward OGB in Turkey. Moreover, in the articulated named “predicting intention to purchase on group buying website in Taiwan Virtual community, critical mass and risk” of Cheng, Tsai, Chen (2012) indicates that social influence directly influence purchasing intention for group buying.

Being deeply inspired from three above journals, in combination with the author’s personal interest with OGB topic, this master thesis plans to use the quantitative approach to examine the linkage among TAM dimension and OGB intention in Vietnam. As a result, TAM is chosen as the framework for this study to explain users’ intentions to perform shopping activities via OGB and to rationalize their attitude to buy in terms of perceived ease of use, perceived usefulness, service quality, perceived risk as well as social influence. Particularly, the effect of social

influence is regarded as moderators in the proposed framework. It is hoped that the findings suggest (1) managerial implications of how TAM dimension and other external variables of TAM impact OGB intention and (2) tangential contributions to the evolving body of knowledge about OGB are shown to some extent. Therefore, the structure of this chapter is separated into four main sections. The first section will test the impact of TAM's, service quality and perceived risk on OGB attitude. Secondly, the relationship between above mentioned dimensions and OGB intention will be presented. The next section of this research will dig deeper into the direct effects of OGB attitude on OGB intention. Finally the moderation impact of social influence between above factors and OGB intention will be finally clear.

3.4.1 Technology Acceptance model for OGB

Attitudes are defined as the positive or negative feelings of an individual towards a specific behavior, which are influenced by perceived usefulness and perceived ease of use. In TAM, Perceived usefulness (PU) is defined by Davis as "the degree to which a person believes that using a particular system could enhance his/her job performance", similarly, perceived ease of use (PE) is defined as "the degree to which the prospective user expects the system to be free of effort" (Davis, 1989).

In this thesis, an OGB attitude is defined as an individual belief and acceptance, considering OGB as a shopping channel while OGB intention refers to the degree to which an individual believes they will be willing to use OGB as a shopping channel. Perceived usefulness (PU) is defined as the degree to which a personal perceives that the use of OGB can enhance his/her efficiency regarding his/her shopping activity and by considering an OGB websites as a technology system and perceived ease of use is understood that using OGB does not require a lot

of their effort. In this thesis, perceived usefulness (PU) and perceived ease of use are supposed to enhance user's attitude to use OGB sites. Apart from having the direct and positive effect on OGB attitude, the author assumes that PU and PE will have a direct and positive effect on OGB attitude and OGB intention (Cheng, Tsai & Chen 2012). Thus the relationship between two dimensions of TAM and customer attitude toward OGB and OGB intention is constructed as follow:

H1: Perceived usefulness (PU) positively affects consumer OGB attitude.

H2: Perceived ease of use (PE) positively affects consumer OGB attitude.

H6: Perceived usefulness (PU) positively affects consumer OGB intention.

H7: Perceived ease of use (PE) positively affects consumer OGB intention

3.4.2 Service Quality

Albert and Tung (1994) found that service quality has an effect on customer attitude and customer intention toward online shopping. Besides, the result from empirical evidence of Kim et al. (2006) proved that poor service quality would affect online retailers negatively. In 2003, Woldfinbarger and Gilly showed a positive relationship between overall service quality and satisfaction in case of fixed web retailing. Erdogmus & Çiçek (2011), Tsai & Chen (2011), Cheng & Hoang (2012) examined the effect of service quality on OGB intention. Thus, service quality is assumed to be related to customer's purchasing attitude and intention toward OGB even when the customer made a purchase in OGB before because a good or bad provided service quality still affect their buying intention for next shopping times. Thus, one of the targets of

the research question in this study is to define how service quality dimensions affect to OGB attitude and OGB intention.

OGB has the dual nature of Web-based application system and traditional shopping method. This thesis explores online and offline features of OGB and their relationships with the acceptance behaviors of customers.

Online features of OGB

Service quality is important, especially the lack of face-to-face contact on a Web site. In this thesis, service quality is based on the perspective that the organization is composed of multiple processes with the goal of providing the customer with high-quality service. Typical dimensions of online features refers to reliability, responsiveness, availability of multiple communication mechanisms for accepting consumer complaints and timely resolution of complaints, but may also include assisting consumers in using a product effectively, suggesting complementary products or service.

Offline features of OGB

Although the online quality factors play an important role in the customer's purchasing decision process toward OGB, there is also a need to consider other potential values of adoption from the consumer's perspective. These benefits are typically rooted in traditional marketing criteria such as access to good products and prompt delivery service, especially the quality of physical product and physical logistics performed by offline operations rather than by Web presence (Gurau et al 2001). Although OGB deals with both physical and digital products and services, the basic concept of product quality is not too different from that of traditional commerce. The most influential factors appear to be product quality and product variety (Todd 1996). Product

quality means the actual quality of products, consistency between the quality specification on the OGB websites and real quality of the physical product. Variety is the assortment or a range of goods available from OGB websites and if the customers can find what they want to buy on OGB. If the product quality meets their expectation, customers tend to regard the OGB as useful and continue to visit it. Besides, reliable and timely delivery is one of the fundamental objectives for online shoppers. Online shoppers make their orders at their office or home anticipating quicker delivery than offline purchasing, and timely delivery on his convenient time. The timely and reliable delivery makes users satisfied so that they will keep using OGB services.

Overall, service quality in this thesis is defined as all benefit that the customers possibly get from OGB including the quality of information provided by OGB sites, the quality of products/services offered by OGB sites, responsiveness (feedback to users and the availability of response from the site managers or Web sites with just in time online support), delivery services, online payment method, return or refund policy. Thus I hence suggest the hypothesis:

H3: Service quality (SQ) positively affects consumer OGB attitude.

H8: Service Quality (SQ) positively affects consumer OGB intention

3.4.3 Perceived risk

Perceived risk's origin was back into 1960 when Bauer, R. (1960) firstly introduced the concept of perceived risks as a combination of uncertainty plus serious of outcome involved. Then Cox & Rich (1964) found perceived risk as the nature and amount of risk perceived by a consumer in contemplating a particular purchase decision. Also, Hoyer & Macinnis (1997) showed that perceived risk is a function of two key components: uncertainty (the likelihood that certain outcomes might occur) and consequences (whether these outcomes will be positive or negative

and how serve they are perceived to be). So far, perceived risk has been applied in many researches to point out its negative influence to consumers' intention toward shop online (Liang and Jin-Shiang (1998), Bhatnagar et al. (2000) Ruyter et al. 2001; Feathermana & Pavlou (2003); Xiao Tong (2010)). The most frequently cited risks associated with online shopping include financial risk (relates a risk of the loss of money to a consumer in online shopping), social risk (defines as the fear of personal information given for transaction to the retailer may be compromised to 3rd party); performance or product risk (reflects uncertainty about whether product or service will perform as expected or is the product the same quality as viewed on the screen); time risk and non-delivery risk (What if the product is not delivered). Tan, 1999 and Kolsaker et al. 2004 points out the correlation between perceived risk and willingness to shop online: the higher the perceived risk is the lower likelihood the consumers purchase the product; whereas, the lower the perceived risk, the higher and the propensity for online shopping. It happens the same in OGB, for each time using OGB do make a purchase; buyers have to face the similar problem. Therefore I believe that a perceived risk is very important variable which critically influence customer attitude and intention toward OGB. Thus the effect of perceived risk on consumer online purchase making decision is supposed to be directly related to OGB intention (Tsai & Chen (2011); Erdogmus & Çiçek (2011); Javadi, (2012)).

H4: Perceived risk (PR) negatively affects consumer OGB attitude.

H9: Perceived risk (PR) negatively affects consumer OGB intention OGB intention

3.4.4 Moderation effect of social influence

As mentioned above, social influence is supposed to impact individuals' attitudes & intention and it should be recognized as a crucial determinant of user behavior in e-commerce, including in the context of OGB. In the reality, when making decision to purchase or do not purchase a certain of product, consumer' behavior is influenced by not only one person but also many different group that they belong to. Especially when the decisions are difficult, customers are more likely to follow the advice because they need more information or when they have little knowledge about a product. They tend to follow the recommendations of others because more external input and recommendations from others help reduce the cognitive cost of thinking and increase the certainty surrounding a decision (Gino and Moore 2006).

In this study, social influence refers to the reference groups that may have the direct or indirect influence in building an individual intention. In other words, several individuals with face to face interaction may be a part of the consumer's purchase decision. The typical roles of these individuals are friends, colleagues or work groups. In addition, with the explosion of Internet and the rapid diffusion of the Internet-based social communication methods, the influence of inferences in the online social communication networks is very considerable (Fitzgerald, 2004). As a result, apart from direct WoM factors, nowadays, customers likely, in the e-commerce context, may be impacted by interpersonal information provided on the websites (Hsu and Chiu, 2004) or comments and recommendations in other virtual communities. Therefore, WoM in OGB is defined as indirect or electronic WOM (e-WOM), consisting of comments or recommendation written and posted directly by existing users or other buyers' opinions discussing about the commodities or service sold in the OGB, on virtual communities such as social network, website discussion groups and the Internet forums (Cheng et al., 2012; Tsai & Chen (2011).

The first type refers to comments or recommendations written by existing users posted directly on the interface of the OGB websites. Most OGB sites have a section allowing experienced consumers to post comments on products and these comments likely influence consumer perceptions of product characteristics such as quality and function (Cheng and Huang, 2012). Some experienced consumers may express their feelings of satisfaction or dissatisfaction online after they have used products. If other users receive positive messages from existing users' reviews, they tend to refer and follow the opinions expressed and develop a purchase intention as regards certain products on group buying websites (Cheng and Huang, 2012). If customers see lot of negative comments they will hesitate to buy products or services you are looking for (Cheng and Huang, 2012). The later type is comments and recommendations written and discussed via virtual communities website such as social network websites (as facebook, blog, tiwntwer) or discussion groups (lamchame.com; webtretho, otfun, tratimvn, Zing me, Voz; Tinhthe.vn). These online messages or comments have a strong persuasive effect on other people (Smith, 1993).

Social influence is found to be a crucial factor in shaping user behavior in online shopping (Hsu & Lu (2004; Venkatesh & Morris (2000) and in technology adoption (Glass & Li, 2010). There are a few researches defining social influence as a direct factor toward OGB intention (Tsai & Chen (2011) and Cheng & Hoang (2012)), however, until now from long time conducting researches relevant to OGB topics, the author has learnt that there is no significant publication examine the indirect effect or social influence.

Moreover, In addition, with the explosion of Internet since the year of 1990, go together with the rapid diffusion of the social network, the influence of e-WoM in Vietnam is getting more considerable. Especially, Vietnam was ranked in the list of 10 countries with the fastest growth

of Facebook users in 2011 with the users reached to 8.6 million (doubled compared to the previous year). Therefore social influence is assumed to be an important factor can influence Vietnamese behavior toward OGB intention.

Taking this research gap, this thesis would like to explore the moderation role of social influence not only in the relationship between itself and TAM dimensions and external variable of TAM factors (service quality and perceived risk) but its moderations role between customer's attitude and customer intention toward OGB will be presented in this thesis. Thus, I proposed the social influence has a moderation effect between perceived usefulness (PU) and OGB intention; between perceived ease of use (PE) and OGB intention; between service quality (SQ) and OGB intention; between perceived risk and OGB intention and between OGB attitude and OGB intention as well.

H10a: Social influence (SI) has a moderation effect between perceived usefulness (PU) and consumer OGB intention

H10b: Social influence (SI) has a moderation effect between perceived ease of use (PE) and consumer OGB intention

H10c: Social influence (SI) has a moderation effect between service quality (SQ) and consumer OGB intention

H10d: Social influence (SI) has a moderation effect between perceived risk (PR) and consumer OGB intention

H10e: Social influence (SI) has a moderation effect between consumer OGB attitude and consumer OGB intention

CHAPTER 4: RESEARCH METHODOLOGY

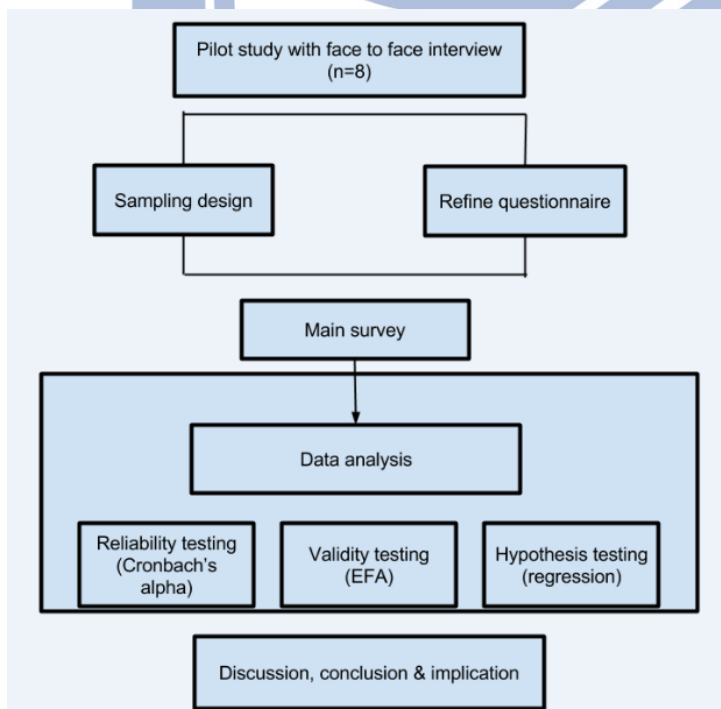
This chapter presents a brief description of the research methodology used for the research, including the research process, research measurement, sample selection methods, data collection methods.

4.1 Research process

Throughout the research, a qualitative approach was adopted to obtain an in-depth understanding of driving factors influencing OGB intention in Vietnam. To collect the quantitative data, the survey method has been used and eventually the data has been analyzed by using SPSS software.

The research process of this study is described in the below figure

Figure 16: Research Process



Firstly, research problem is defined, and then research objective and research questions are identified to be the target of solving defined research problem. After that, this study conducted a literature review to review some relevant theories about factors influencing customer intention toward OGB to find out the suitable one to Vietnamese group buying model and built the hypotheses for this study. From this, a preliminary questionnaire is developed basing on questions used in some previous studies. Next step is research design with 2 sub-steps:

Pilot study: a preliminary survey to test the survey and measure before launching the main survey was conducted by interviewing face to face 8 students.

Main survey: conducted in many methods such as sending online survey through mail, social network and sending the hard copy of survey directly to respondents. Data collection was done two weeks later.

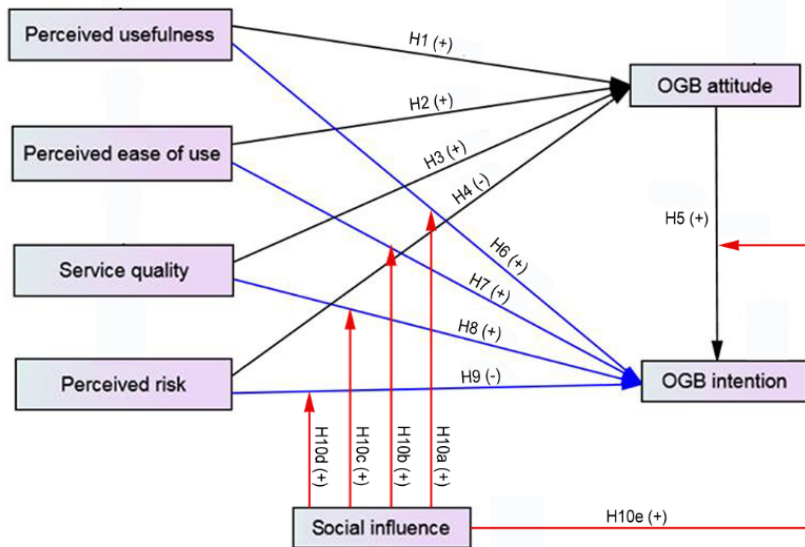
After that, collected data was cleaned and used to test reliability of scale and validity of questionnaire through Cronbach's alpha coefficient and Exploratory Factor Analysis (EFA) method. Multiple regression method was used to evaluate the hypotheses which the implication and finding were stated and reported.

4.2. Research framework

According to the literature review, research framework is proposed. It is visually presented on Figure 16. In the first section, two dimensions of TAM, service quality, perceived risk are tested to know its impact on customer attitude toward OGB attitude; on the other hand; the impacts of these factors also are examined in the positive and direct relationship with customer intention toward OGB. Also, to gain an in-depth understanding of OGB intention, the moderator social

influence is presented to know its moderation effect between four factors and OGB intention and its moderation effect between buying attitude toward OGB and intention toward OGB as well.

Figure 17: Technology acceptance model of OGB



In summary, this research proposes the following hypothesis

H1	Perceived usefulness (PU) positively affects consumer OGB attitude.
H2	Perceived ease of use (PEOU) positively affects consumer OGB attitude.
H3	Service quality (SQ) positively affects consumer OGB attitude.
H4	Perceived risk (PR) negatively affects consumer OGB attitude.
H5	Consumer OGB attitudes has a positive effect on consumer OGB intention.
H6	Perceived usefulness (PU) positively affects consumer OGB intention.

H7	Perceived ease of use (PEOU) positively affects consumer OGB intention.
H8	Service Quality (SQ) positively affects consumer OGB intention.
H9	Perceived risk (PR) negatively affects consumer OGB intention OGB intention.
H10a	Social influence (SI) has a moderation effect between perceived usefulness (PU) and consumer OGB intention.
H10b	Social influence (SI) has a moderation effect between perceived ease of use (PE) and consumer OGB intention.
H10c	Social influence (SI) has a moderation effect between service quality (SQ) and consumer OGB intention.
H10d	Social influence (SI) has a moderation effect between perceived risk (PR) and consumer OGB intention.
H10e	Social influence (SI) has a moderation effect between consumer OGB attitude and consumer OGB intention.

4.3 Questionnaire design

A questionnaire supporting this report was made in order to obtain information about which factors influence customer purchase intention on OGB. The questionnaire consists of three main parts (see appendix B). In the first part respondents were asked five questions about their current shopping activities on OGB site. These questions are defined as the screening questions to define type of respondents (who have used OGB to buy products and who have not used OGB services).

In the second part, respondents were asked questions about their beliefs and importance related to three main set of driving factors impact on OGB intention. The last part contains six questions used to collect demographic information. The questionnaire measured responses using 5-point Likert-type scale ranging from “strongly disagree – 1” to “strongly agree – 5”.

Pilot study

To conduct pilot study, after the research tools were developed, convenient sample of five Taiwanese students and three Vietnamese students studying in National Chiao Tung University, Hsinchu, Taiwan was selected. Through giving the survey questionnaires in hand to the respondents and explain & discuss face to face to them, the author was able to communicate with the participants and to observe if there is any problematic part of the survey, that need to be changed. The purpose of pilot study is to ensure those participants are able to understand thoroughly and answer questions exactly.

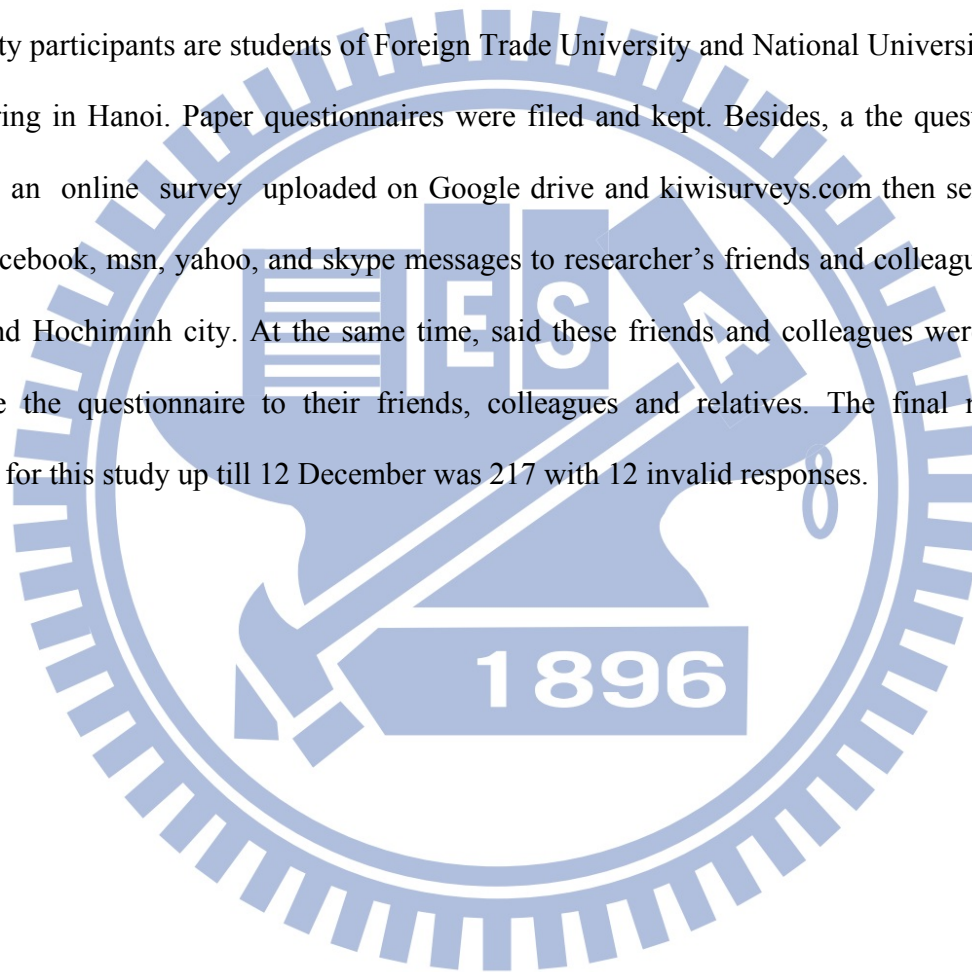
English survey was initially composed and then was interpreted into Vietnamese by the author. To ensure coherence and reliability of the questionnaire, another bilingual speaker, whose background was also OGB oriented, was in charge of re-translating it into English. The English and Vietnamese versions were then compared, and no differences were found in terms of cultural and context in language or particular differences in OGB in terms of translation background.

The survey was mainly performed with Internet based (see appendix C and appendix D) and respondents were asked to answer the questionnaire as a means to test the primary hypotheses.

Method

Data collection procedure

The executing method of data collection for this research is quantitative. The responses of respondents through questionnaire will be the primary data for this research. The questionnaires items of this study were revised from previous researches and took four weeks to collect, starting from November 8th to December 12th of 2013. First, the primary data is collected using a paper survey and e-mail survey distributed to convenient sample of university students. Vietnamese nationality participants are students of Foreign Trade University and National University of Civil Engineering in Hanoi. Paper questionnaires were filed and kept. Besides, the questions were listed in an online survey uploaded on Google drive and kiwisurveys.com then sent through email, facebook, msn, yahoo, and skype messages to researcher's friends and colleagues in both Hanoi and Hochiminh city. At the same time, said these friends and colleagues were asked to distribute the questionnaire to their friends, colleagues and relatives. The final number of response for this study up till 12 December was 217 with 12 invalid responses.



CHAPTER 5: DATA PROCESS AND ANALYSIS

5.1 Data processing

Google online and kiwisurveys.com providing detail time stream of respondents as well as a spreadsheet of all responses was used to collect the data. The spreadsheet was later coded for easier analysis. First, all respondent answers were coded in a proper way to be qualified to run SPSS, especially, dependent and independent variables were coded: perceived usefulness = PU, perceived ease of use = PE, service quality = SQ, perceived risk = PR, social influence = SI, OGB attitude = OA and OGB intention = OI. With regard to frequency of using OGB services to buy products, times of using OGB were categorized as follows:

Have not used OGB services: non-user (coded as 0)

Once or more than once a week were chosen: heavy user (coded as 1)

Once a month were chosen: medium user (coded as 2)

Less than one a month were chosen: light user (coded as 3)

5.2 Data Analysis

5.2.1. Descriptive statistic

Characteristics of respondents

In the first stage of the analysis, the demographic details of respondents (gender, age, marriage status, education, occupation and income) were tested with an aim to eliminate demographic influence on the constructs in questionnaire.

Table 1: Demographic data of respondents

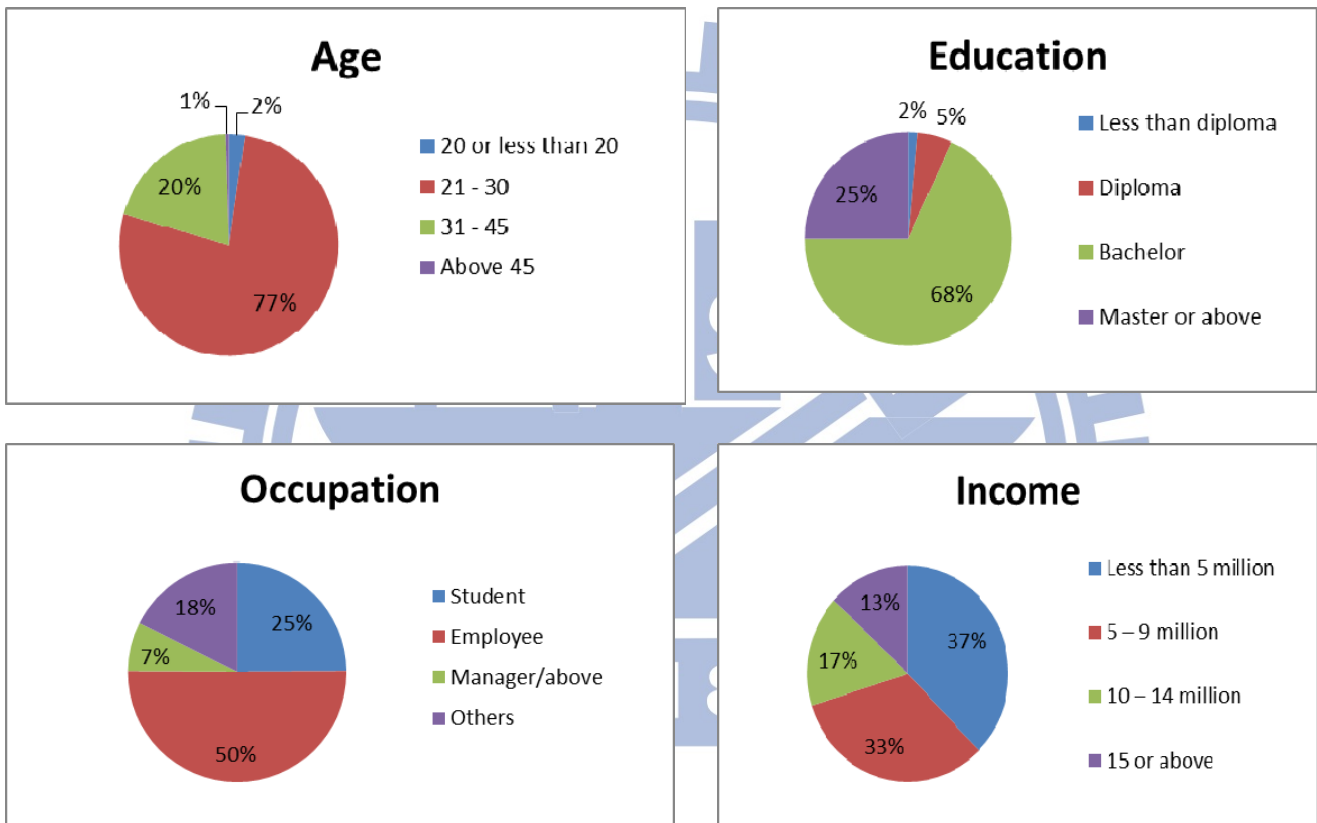
Measure	Items	Frequency	Percentage (%)
Gender	Male	60	29.3
	Female	145	70.7
Marriage status	Single	124	60.5
	Married	78	38
	Others	3	1.5
Age	20 or below 20	5	2.4
	21 - 30	158	77.1
	31 - 45	41	20
	Above 45	1	0.5
Education	Below diploma	3	1.5
	Diploma	11	5.4
	Bachelor	139	67.8
	Master or above	51	24.9
	Others	1	0.5
Occupation	Student	51	24.9
	Employee	103	50.2
	Manager/above	15	7.3
	No income	36	17.6
Monthly income	Below 5 million	77	37.6
	5 – 9 million	57	32.7
	10 – 14 million	34	16.6
	15 or above	27	13.2

Note: 1 million VND equivalents to 50 US Dollar

The total numbers of respondents were 205 including 60 males and 145 females (29.3% and 70.7% respectively). The result shows that feminine users are more active in using OGB to buy products than male, what is consistent with a common stereotype is that females enjoy shopping more than males. Also, according to two charts below, the percentage of the respondents for age

between under 20; 21-30; 31-45; and above 45 are 2.4%, 77.1%, 20% and 0.5% respectively. Precisely, the majority of the respondents are at young age, under 30 years old (account for more than 79.5% of total respondents).

Figure 18: Demographics information of respondents



In the survey, 50% the respondents are employees with the income equal or less than 9 million VND (approximately 450 USD) (account for 32%). These mean OGB attracted many intentions of young people with moderate income, particularly the company employees who have chance to access to the internet most frequently and have time & money to use OGB as their shopping channel as well.

OGB usage status

The survey required if the respondents have used OGB services to buy products and how frequently they use OGB to make a purchase. The result showed relatively higher usage rate (76.1%). The characteristics of OBG usage were identified by examining the relationship between the respondents' demographic profiles and frequency of buying products in OGB. Chi-square with confident level of 95% was employed to test the variance of usage of population under demographic variables.

Table 2: Characteristics of respondents & OGB services usage

Categories	None		Heavy usage		Medium usage		Light usage		P-value sig.
	f	%	f	%	f	%	f	%	
Gender									
Male	16	34.8	1	16.7	12	30	30	27	0.701
Female	30	65.2	5	83.3	28	70	81	73	
Marriage status									
Single	31	67.4	3	50	18	45	71	64	0.377
Married	14	30.4	3	50	21	52.5	39	35.1	
Others	1	2.2	0	50	1	2.5	1	0.9	
Age									
20 or below 20	3	6.5	0	0	0	0	2	1.8	0.341
21 – 30	37	80.4	5	83.3	31	77.5	81	75.7	
31 – 45	6	13	1	16.7	8	20	25	22.5	
above 45	0	0	0	0	1	2.5	0	0	
Education									
Below diploma	2	4.3	0	0	0	0	1	0.9	0.632
Diploma	1	2.2	0	0	1	2.5	9	8.1	
Bachelor	28	60.9	5	83.3	29	72.5	75	67.6	

Master or above	15	32.6	1	16.7	10	25	25	22.5	
Others	0	0	0	0	0	0	1	0.9	
Occupation									
Student	18	39.1	2	33.3	4	10	26	23.4	
Employee	17	37.0	2	33.3	27	67.5	56	50.5	0.063
Manager/above	1	2.2	1	16.7	2	5.0	11	9.9	
Others	10	21.7	1	16.7	7	17.5	18	16.2	
Income									
Below 5 million	22	47.8	1	16.7	12	30	41	36.9	
5 – 9 million	15	32.6	1	16.7	16	40	34	30.6	0.107
10 – 14 million	6	13	1	16.7	9	22.5	18	16.2	
15 or above	3	6.5	3	50	3	7.5	18	16.2	

f = frequency

From the table, in general there is no significant relationship between respondents demographic and OGB usage (all p-values of all variables are higher than 0.05). It means that gender, marriage, age, education, occupation and income do not affect customer purchasing decision on OGB. The population size with 205 respondents is relatively fair, not good enough for SPSS analysis. As a result, using chi-square to measure the relationships between demographics factors and OGB usage are not really effective for this case. It is hoped that this limitation will be reduced if the further research with wider range is going to be conducted in the near future.

Among of these variables, however, occupation variable tends to be most close to 0.05 (p-value is 0.063). Maybe due to the sample size, the result is not significantly supportive but it does make sense to assume that occupation is somehow related to OGB services usage. From the survey, OGB is observed to be most popular among the students and employees under 31 years old with monthly income from 200 to 450 USD. These respondents are young people, who are most potential to access to the internet, most innovative and flexible to get used to using OGB as

new shopping activities. It is notable that the potential group of OGB adopters should be targeted at young, middle income (200 to 450 USD).

5.2.2. Measurement of internal consistency

Cronbach's alpha is well known as an internal consistency estimate of reliability test scores. This research will use Cronbach's alpha to examine the reliability of variables in the questionnaire through following coefficients.

Table 3: Cronbach's alpha reliability test results of pre-run data

Items	Corrected item total correlation	Alpha if items deleted	Cronbach's alpha
Perceived usefulness (PU)			
PU1	0.462	0.752	0.760
PU2	0.621	0.669	
PU3	0.547	0.711	
PU4	0.608	0.676	
Perceived ease of use (PE)			
PE1	0.600	0.800	0.824
PE2	0.693	0.757	
PE3	0.591	0.591	
PE4	0.711	0.711	
Service quality (SQ)			
SQ1	0.679	0.722	0.794
SQ2	0.585	0.752	
SQ3	0.676	0.722	
SQ4	0.430	0.801	
SQ5	0.527	0.772	
Perceived risk (PR)			

PR1	0.524	0.622	0.701
PR2	0.461	0.652	
PR3	0.528	0.620	
PR4	0.315	0.707	
PR5	0.467	0.649	
Social influence (SI)			
SI1	0.194	0.714 (2 nd deleted)	0.619
SI2	0.251	0.639 (1 st deleted)	
SI3	0.520	0.533	
SI4	0.550	0.487	
SI5	0.443	0.548	
OGB attitude (OA)			
OA1	0.500	0.594	0.686
OA2	0.514	0.576	
OA3	0.488	0.610	
OGB intention (OI)			
OI1	0.730	0.900	0.894
OI2	0.846	0.800	
OI3	0.802	0.840	

According to Hair, et al. (1998) and Pallant (2005), the scales are reliable when Cronbach's alpha coefficient of each scale is equal to or more than 0.6 and those items which have the value of Corrected Item-to-total Correlation more than 0.3. Thus, social influence with the low Corrected item total correlation coefficients of SI1 ($0.194 < 0.30$) and SI2 ($0.251 < 0.3$) were discarded in order to improve reliability level of the measurement scale.

Table 4: Cronbach's alpha summary results after deleting SI1 & SI2

Research construct	Number of items	Cronbach's alpha
--------------------	-----------------	------------------

Perceived usefulness (PU)	4	0.760
Perceived ease of use (PE)	4	0.824
Service quality (SQ)	5	0.794
Perceived risk (PR)	5	0.701
Social influence (SI)	3	0.714
OGB attitude (OA)	3	0.686
OGB intention (OI)	3	0.894

As shown in the table, after deleting two variables SI1 and SI2 most of values were above 0.7 (only OGB attitude is 0.686 but still quite close to 0.7). Thus, the reliability test results above shows very high Cronbach's alpha (from 0.686 to 0.894) and all seven constructs were reliable to keep for further analysis.

5.2.3. Exploratory Factor Analysis (EFA)

The primary objective of EFA is to determine the number of factors affecting the measures and the strength of the relationship between each factor and each observed measure. Factor analysis is appropriate to data if the Kaiser-Meyer-Olkin value (KMO) is 0.5 or greater; the Bartlett's test of sphericity is statistically significant: $p < 0.05$; the number of factors is determined when the components have an eigenvalue of 1 or more and the total variance explained by these components should be above 50% (Chin, 1998; Hair et al., 1995, Field, 2000).

After conducting Cronbach's alpha, two variables (SI1 and SI2) was not qualified to use. Therefore, four factors with eighteen observed variables in the questionnaire are employed and supposed to influence customer's attitude and intention towards OGB. EFA method with

Varimax rotation was used. KMO (Kaiser-Meyer-Olkin) and Bartlett test were also applied to measure the compatibility of sample.

5.2.3.1 EFA for dependent variables

Table 5: KMO & Bartlett's test result for PU, PE, SQ, PR toward OGB attitude

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.839
Bartlett's Test of Sphericity	Approx. Chi-Square	1342.848
	df	153
	Sig.	.000

It revealed that the KMO values of all factors were 0.839 (bigger than 0.5) and the Bartlett's Test significance is 0.000 (smaller than 0.05). This means observed variables had the correlation.

Table 6: Result of total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.500	30.554	30.554	5.500	30.554	30.554	3.148	17.490	17.490
2	2.220	12.333	42.887	2.220	12.333	42.887	2.646	14.701	32.191
3	1.689	9.385	52.273	1.689	9.385	52.273	2.404	13.353	45.544
4	1.192	6.622	58.895	1.192	6.622	58.895	2.403	13.351	58.895
5	.928	5.156	64.051						
6	.825	4.582	68.633						
7	.716	3.980	72.613						
8	.641	3.563	76.176						
9	.600	3.336	79.512						

10	.582	3.235	82.747
11	.559	3.108	85.855
12	.484	2.687	88.543
13	.459	2.547	91.090
14	.422	2.344	93.434
15	.386	2.145	95.579
16	.319	1.775	97.354
17	.255	1.418	98.771
18	.221	1.229	100.000

Four factors with eigenvalues greater than one were initially retained and the percentage of cumulative variance is 59%, which means that eighteen factors could explain 59% the variance of observed variables.

Table 7: Result of rotated component matrix

Rotated Component Matrix				
	Component			
	1	2	3	4
PE: Perceived ease of use				
PU: Perceived usefulness				
SQ: Service quality				
PR: Perceived risk				
PE4: Overall I find OGB is easy to use	.783			
PE1: Learning to use OGB is easy for me	.763			
PE2: My interaction with OGB is clear and understandable	.758			
PE3: Interacting with OGB does not require a lot of my mental effort	.709			
SQ4: Payment method in OGB is simple and convenient for customers	.587			
SQ3: The quality of the product I received is the same as what shown on the websites		.794		
SQ1: The information provided by OGB websites is accurate		.765		
SQ2: OGB websites quickly deliver what I order		.726		
SQ5: When I use OGB to buy a product, I am influenced by the number of people who bought the product		.599		
PU2: Using OGB would improve my shopping performance			.765	
PU3: Using OGB would enhance my effectiveness in shopping			.711	
PU4: Overall I find OGB useful for my shopping activities			.699	

PU1: Using OGB would enable me to accomplish shopping and information seeking more quickly than using traditional stores	.592
PR1: When transaction error occurs, I worry that I can lose my money.	.723
PR3: Using OGB is not secured (insecurity of financial transactions).	.668
PR2: I am worried that product quality may not meet my expectations.	.668
PR5: I am worried that I cannot return or exchange the product if it is faulty	.642
PR4: Using OGB can put my personal information at risk.	.593

This table displays the rotated loading matrix for these factors with all items loading above 0.5. The initial factor was indicated by the variables “perceived usefulness”, “perceived ease of use”, “service quality”, and “perceived risk”. Hence, after running rotated component matrix, all items were proved to be categorized properly except SQ4: “Payment method in OGB is simple and convenient for customers”. Accordingly, the group of perceived ease of use was characterized by one more additional variable SQ4 that initially belonged to the service quality (SQ) group. Afterward, SQ4 was doubled check and found that this item reflects the similar characteristics of ease of use and convenience of payment that customers perceive if they use OGB services to buy products. As a consequence, SQ4 was grouped into PE group.

According to Chin, 1998; Hair et al., 1995, Field, 2000, in order to ensure EFA factor analysis was considered importantly and has the practical significance, only observed variables which had the factor loading equal or larger than 0.5 are kept. Thus, from the table, all variables are qualified for further analysis.

The result of EFA showed that there were actually 4 factors underlying this construct in which each factor represented to each independent variable in the research model. Cronbach’s alpha

would be tested again with new observed variables to ensure the reliability of using measurement scales. Table below is the Cronbach's alpha result after running EFA:

Table 8: Cronbach alpha for new Perceived ease of use group (PE1, PE2, PE3, PE4, SQ4)

5 Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
PE1	0.597	0.802	0.828
PE2	0.691	0.774	
PE3	0.595	0.802	
PE4	0.731	0.762	
SQ4	0.512	0.824	

Table 9: Cronbach's alpha for new Service Quality group (SQ1, SQ2, SQ3, SQ5)

4 items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
SQ1	0.700	0.710	0.801
SQ2	0.562	0.776	
SQ3	0.693	0.712	
SQ5	0.522	0.802	

Table 10: Cronbach's alpha summary after running EFA

Factor	Name of factors	Items included	Cronbach's alpha
1	Perceived ease of use (PE)	PE1, PE2, PE3, PE4, SQ4	0.828
2	Service quality (SQ)	SQ1, SQ2, SQ3, SQ5	0.801
3	Perceived usefulness (PU)	PU1, PU2, PU3, PU4	0.760
4	Perceived risk (PR)	PR1, PR2, PR3, PR4, PR5	0.701

Cronbach's alpha coefficients of four factors after being adjusted by EFA were quite high (almost much more than 70% and Corrected Item-Total Correlation were all larger than 0.3.

Therefore it was still meaningful and reliable. Thus, four factors will be categorized and retained for further analysis.

5.3.2.2 EFA for dependent variables

Customer attitude toward OGB

Table 11: KMO & Bartlett's test for customer attitude toward OGB

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.668
Bartlett's Test of Sphericity	Approx. Chi-Square	98.431
	df	3
	Sig.	<.001

Table 12: Total variance explained for OGB attitude

Component	Total Variance Explained					
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.845	61.502	61.502	1.845	61.502	61.502
2	.597	19.911	81.413			
3	.558	18.587	100.000			

The condition of KMO value (bigger than 0.5) and Bartlett's test significance (smaller than 0.05) of this factor were met, so EFA analysis is also appropriate. Three OGB attitude factors could explain 61.502% the variance of observed variables.

Customer intention toward OGB

Table 13: KMO & Bartlett's test for OGB intention

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.721
Bartlett's Test of Sphericity	Approx. Chi-Square	382.095
	df	3

Sig.

<.001

Table 14: Total variance explained for OGB intention

Component	Total Variance Explained					
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.475	82.511	82.511	2.475	82.511	82.511
2	.351	11.685	94.197			
3	.174	5.803	100.000			

The condition of KMO value is 0.721 (bigger than 0.6), Bartlett's test significance (smaller than 0.05) and three OGB intention factor. Thus, we could conclude that EFA of OI was met.

5.2.4. Hypothesis test

5.2.4.1 Direct effect of driving factors (PE, SQ, PU, and PR) on customer attitude toward OGB

Linear regression test with confident level of 95% took place in examining the linear relationship among Perceived usefulness (PU), Perceived ease of use (PE), Service quality (SQ), and perceived risk (PR) and customer attitude (OA).

Table 15: Results of testing hypothesis - Factors construct on customer attitude toward OGB

Hypothesis	Beta	p-value	Test results
H1: Perceived usefulness positively affects customer OGB attitude	0.298***	<.001	Supported
H2: Perceived ease of use positively affects customer OGB attitude	0.287***	<.001	Supported
H3: Service quality positively affects customer OGB attitude	0.369***	<.001	Supported
H4: Perceived risk negatively affects customer OGB attitude	-0.074	0.209	Not supported

Note: *** ($p < .001$)

The output of linear regression from table coefficients showed that at the level of 95% confidence, most of independent variables were significantly contributing to the prediction of the dependent variable customer attitude toward OGB except perceived risk with the significant value was 0.209 larger than 0.05. Therefore, hypothesized H1, H2, H3 are supported, namely Perceived usefulness, Perceived ease of use and Service quality do have the effect on customer attitude to use OGB method as shopping activities, which is similar to find in other research on other OGB topics. By contrast, the beta coefficient of perceived risk was -0.074 show the negative effect of PR on OGB attitude but the p-value was 0.209 > 0.05 that means even perceived risk have a negative beta coefficient but it has no significant effect on OGB attitude therefore H4: “Perceived risk (PR) negatively affects customer OGB attitudes” is not supported.

5.2.4.2: Relationship between OA and OI

Table 16 : Regression result between OGB attitude & OGB intention

		Coefficients			t	Sig.
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	-1.002E-013	.059		.000	1.000
	OGB attitude	.538	.059	.538	9.086	.000

Linear regression was also employed to test the direct effect of customer attitude and customer intention toward OGB. The result showed the positive correlation coefficient between OGB attitude (OA) and OGB intention (OI) is 0.538 with the significant level of $0.000 < 0.05$, it was found that OGB attitude have a significant effect on OGB intention, therefore H5: “Consumer OGB attitudes has a positive effect on customer OGB intention” is supported. The result

indicated if customer has a positive attitude toward OGB, they have a positive tendency of willingness to use OGB to buy products. In other words, if customers increase 1 unit in OGB attitude, the OGB intention will increase 0.538 units.

5.2.4.3 Direct effect of driving factors on OGB intention

Running the linear regression test with confident level of 95% took place in examining the linear relationship among the same independent variables as above (Perceived usefulness (PU), Perceived ease of use (PE), Service quality (SQ), and Perceived risk (PR) but in the relationship with OGB intention (OI).

Table 17: Results of testing hypothesis - Factors construct on customer intention toward OGB

Hypothesis	Beta	p-value	Test results
H6: Perceived usefulness positively affects customer OGB intention	0.361***	<.001	Supported
H7: Perceived ease of use positively affects customer OGB intention	0.343***	<.001	Supported
H8: Service Quality positively affects customer OGB intention	0.219***	<.001	Supported
H9: Perceived risk negatively affects customer OGB intention	-0.070	0.239	Not Supported

Note: *** ($p < .001$)

Linear regression results show that perceived usefulness, perceived ease of use and service quality are significant impact on OGB intention (customer's willingness to use OGB services) (all p-value are all lower higher than 0.5) except perceived risk coefficient is 0.239 larger than 0.05. Accordingly, most of independent variables were significantly contributing to the

prediction of the dependent variable customer intention toward OGB except perceived risk. The table above showed the negative correlation coefficient between Perceived risk and OGB intention is -0.070 with the significant level of $0.239 > 0.05$, it was found that perceived risk does not have a negative effect on OGB intention. Therefore, the hypotheses H6, H7, H8 are supported and H9 “Perceived risk (PR) negatively affects customer OGB intention” is not supported.

It means that when respondents increase 1 unit in their Perceived usefulness, Perceived ease of use of using OGB, or their belief in Service quality, their intention toward OGB will increase by 0.361, 0.343, and 0.219. It can be assumed that customer will have a better belief on using OGB if they recognize the advantages and value this method can bring to them (such as save time, save money, get the best deal; find more information about a product) in comparison with the traditional shopping method. In the same way if customers find that they can learn to use OGB easily or it does not require lot of effort to interact with OGB, then they are more likely to have a positive belief of using OGB. Also, service quality is important for customers to decide if they use OGB service or not. The better service quality (including providing accurate information, quick delivery, good quality) that OGB sites offer to the customers can lead to positive belief on OGB services.

5.2.4.4 Moderator effect of Social influence

In this study, social influence is proposed as a moderator which is predicted to impact on pair – relationships: PE – OGB intention, PR- OGB intention, SQ – OGB intention, PR – OGB intention.

Generally moderator effect are indicated by the interaction of X and M in the explaining Y in the following multiple regression equation

$$Y = a + b_1X + b_2M + b_3XM + e$$

In this study M is presented by social influence (SI), X is Perceived ease of use, Perceived risk, Service quality and perceived usefulness in turn.

Table 18: Moderating effect of social influence - summary of multiple regression results

Variables	Unstandardized Coefficient	P - value
H10a: Social influence (SI) moderates the effect of PU on OGB intention		
(Constant)	0.005	0.943
PU (Perceived usefulness)	0.348***	<.001
SI (Social influence)	0.085	0.203
SIPU = Social influence x Perceived usefulness	-0.033	0.578
H10b: Social influence (SI) moderates the effect of PE on OGB intention		
(Constant)	0.17	0.793
PE (Perceived ease of use)	0.309***	<.001
SI (Social influence)	0.085	0.201
SIPE = Social influence x Perceived ease of use	-0.125*	0.040
H10c: Social influence (SI) moderates the effect of SQ on OGB intention		
(Constant)	-0.350	0.612
SQ	0.127	0.078
SI (Social influence)	0.196**	0.005

SISQ = Social influence x Service quality	0.149*	0.024
H10d: Social influence (SI) moderates the effect of PR on OGB intention		
(Constant)	0.006	0.936
PR	-0.087	0.213
SI (Social influence)	0.148*	0.036
SIPR = Social influence x Perceived risk	-0.050	0.469
H10e: Social influence (SI) moderates the effect of OGB attitude on OGB intention		
(Constant)	-0.005	0.934
OA	0.019	0.756
SI (Social influence)	0.529***	<.001
SIOA = Social influence x OGB attitude	0.022	0.677

Note: *($p < .05$), ** ($p < .01$), *** ($p < .001$)

The result of testing moderating effect of Social influence on perceived ease of use (PE) and service quality (SQ) and OGB intention shows significant level of $p = 0.040$ and 0.024 lower than 0.05 which means the interaction between social influence and perceived ease of use and OGB intention does exist. The effect of social influence on perceived ease of use with a negative impact on OGB intention beta is -0.125 . It indicates that when people have more willingness to experience social influence; the impact of perceived ease of use will eventually be weaker on OGB intention. Coefficient of 0.149 indicates that the interaction of social influence with service quality has a positive effect on OGB intention. The increase in interaction between social influence and service quality is associated with an increase in OGB intention. The effect of social influence on perceived ease of use and OGB intention is negative beta coefficient while its effect on service quality on OGB intention is negative beta reflects the real customer behavior when joining the virtual communities. When leaving comments on the OGB sites or on the network websites, customers have a tendency of posing or discussing about service quality, product quality, staff attitudes rather than jumping detail and give specific comments about if a certain of OGB

sites is easy to use or not. Therefore, the effect of social influence on service quality is much more stronger than its impact on perceived ease of use.

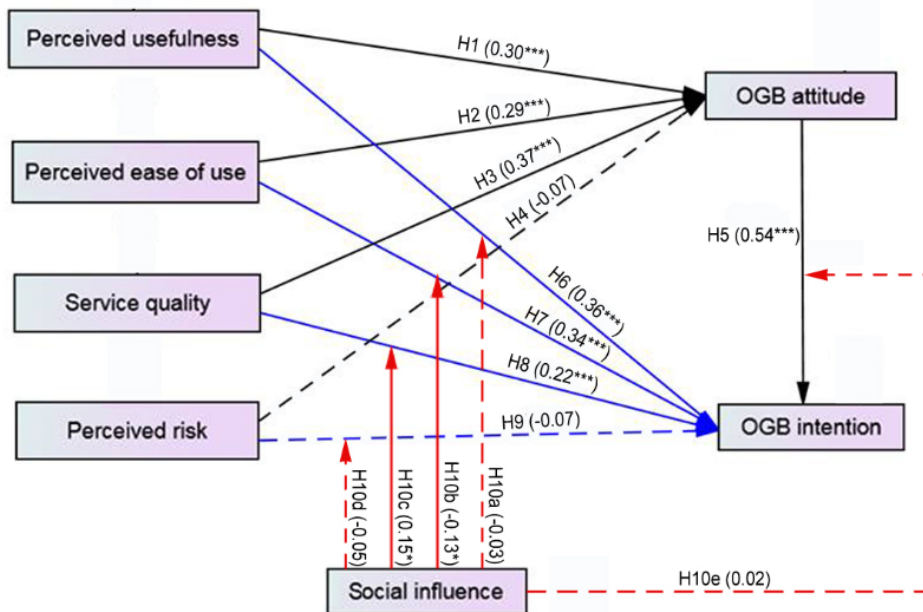
By contract, it is found that social influence does not have significant moderation effect of perceived usefulness, perceived risk and OGB intention (with p-value >0.05) which means customer will not change their perception of usefulness, service quality and perceived risk on OGB intention regardless of how strongly or slightly the social influence impact their intention of using OGB services.

In conclusion, when social influence appeared in the framework, it turned the impact of perceived ease of use (PE) and service quality (SQ) on OGB intention into significance (with p-value = 0.014 and $0.044 < 0.05$).

5.2.5 Assessment of Path Coefficients

Based on the results, AMOS graphic of SPSS is used to draw up the relationship among hypotheses. First the proposed framework of pre-run data is shown in Figure 5.3.1 then the hypothesized structural paths with the results of beta coefficients is assessed and presented in the figure 5.3.2.

Figure 19: Estimated Model



Note: *($p < .05$), *** ($p < .001$)

The overall fit indicated that TAM also provided a good fit to the data and perceived usefulness, perceived ease of use both significantly affected on OGB attitude and OGB intention (perceived usefulness and perceived ease of use to attitude path (path coefficient = 0.30, $p < 0.001$ and 0.29, $p < 0.001$ respectively) and to intention (path coefficient = 0.36, $p < 0.001$ and 0.34, $p < 0.001$ respectively) happened to be significant. Although the effect of perceived risk was insignificant to attitude (path coefficient = - 0.074, $p = 0.209 > 0.05$) and to intention (path coefficient = - 0.070, $p = 0.239 > 0.05$) all other fit statistics were within an acceptable range, suggesting a comparable fit to the data based on the measures presented in hypothesis test. The model accounted for 30% of variance in attitude and 29% in intention. Both two dimension of TAM models and external variables of TAM such as service quality and social influence explained a significant proportion of the variance in Vietnamese OGB behaviors.

CHAPTER 6: RESULTS AND CONCLUSION

6.1 Results

In this chapter, a brief on the main findings of the research is presented along with the research implications. Afterward, research limitation and recommendations for a future study are mentioned as well.

The findings of this thesis indicate that the TAM model is quite a good application to explore factors influencing OGB intention in Vietnam. Both OGB attitude and OGB intention are impacted by perceived usefulness, perceived ease of use, service quality. The remaining dimension, perceived risk was found to have no influence on Vietnamese attitude and behavioral intention. Also, the effect of social influence that moderates the relationship between perceived ease of use and online group buying intention, between service quality and group buying intention are simultaneously explored.

6.1.1 Antecedents of Attitude

As suggested by path coefficient perceived usefulness, perceived ease of use, service quality positively and substantially influence on attitude towards OGB. Perceived usefulness and perceived ease of use to attitude path happened to be significant (path coefficient = 0.298, $p < 0.01$ and 0.287, $p < 0.01$ respectively) and thereby supporting the hypothesis 1 and 2. This is accordant with the findings of Taylor and Todd (1995), Davis (1989) who verified existence of a constructive significant relationship between attitude and perceived usefulness for customers of the information technology systems. Also, this results support the findings of Tsai & Chen (2011); Chang, Lee & Su (2011), as the presence of a significant association between attitude

and perceived usefulness and perceived ease of use toward OGB. The path between service quality and attitude was found to be significant (path coefficient= 0.369, $p < 0.01$), thereby supporting the hypothesis 3. This is accordant with the findings of Albert and Tung (1994) for online shopping and Erdogmus & Çiçek (2011); Cheng & Hoang (2012); Tsai & Chen (2011), who indicated the existence of a significance relationship service quality and the attitude in OGB studies.

Overall, the effects of the three factors of attitude (perceived ease of use, perceived usefulness and service quality) take place over 30% of the variance in this model. In which, service quality brought the strongest influence with 0.369 level of coefficient, showing the central role of service quality in driving attitude toward OGB.

6.1.2 Antecedents of Intention

The paths between OGB attitude, perceived usefulness, perceived ease of use, service quality and OGB intention are relatively substantial (path coefficient = 0.538; 0.361, 0.343; 0.219, $p < 0.01$ respectively), thereby supporting H5, H6, H7, H8. Thus there are existences of a significant relationship between OGB attitude and OGB intention, perceived ease of use, perceived ease of use & service quality.

The path between attitude and intention was found to be strongly significant (path coefficient = 0.538, $p < 0.01$), means that people with higher attitude toward OGB are supposed to have higher OGB intention. This is accordant with the findings of Yu et al., (2004), Chen, Gillenson & Sherrell (2002) for online shopping who tested the presence of a constructive significant relationship between attitude and the intention for inexperienced users of the information technology.

By contrast, the thesis testing the direct impact of perceived risk on OGB attitude and intention was not approved. The path between perceived risks and OGB attitude and OGB intention were found to be not significant (path coefficient= 0.239 and 0.209, $p > 0.05$), thereby did not support the hypothesis 4 and hypothesis 9. This is inconsistent with the findings of Tong (2010) for e-commerce and Tsai & Chen (2011); Chang, Lee & Su (2011) who reported the presence of a constructive significant relationship between risks and the intention for using OGB services however this result explores the current situation of OGB adoption progress in Vietnam. This means, when using OGB services, customers possibly feel insecure about insecurity of personal information or worried that product quality may not meet their expectation and so on, however, due to the high attractiveness of OGB method as a new shopping channel, the effect of personal innovativeness (most respondents under 31 year old who are most innovative and most flexible to adapt new shopping method), the impact of perceived risk is reduced. As mentioned in the chapter 2, since the implementation of the Master Plan on E-commerce Development for the 2011-2015 periods, Vietnam government has improved infrastructure environments, security protection, and legal framework for e-commerce development, which leads customer to be more confident to make transaction via OGB websites. In addition, most merchandises on OGB are not extremely expensive, thus people tend to be more decisive to buy those stuffs via new shopping channel due to the advantages OGB brings to them.

From the results, perceived ease of use, perceived usefulness and service quality together took can explain 29% of the variance in this model and perceived usefulness had the strongest impact with 0.361 level of coefficient, showing the central role of perceived usefulness in driving attitude toward OGB.

6.1.3 Antecedents of moderators

This study proves the critical moderating effect of social influence in OGB intention in Vietnam. The path between social influence on OGB intention & perceived ease of use, between OGB intention & service quality are relatively substantial (path coefficient= 0.04 and 0.024, $p < 0.05$), thereby supporting H10b, H10c. Thus there are existence of a significant relationship between social influence on OGB intention & perceived ease of use, OGB intention & service quality.

Overall, findings from the investigation suggest the proposed model to be appropriate to explain customer OGB behavioral intention. After tests, nine out of the fourteen paths were noteworthy at $p < 0.05$ level, providing support for H1, H2, H3, H5, H6, H7, H8, H10b, H10c. Basing on the hypotheses testing result, perceived usefulness is the most important antecedent of customer behavioral intention toward OGB with the largest beta coefficient ($\beta = 0.361$), followed by perceived ease of use ($\beta = 0.343$) and service quality ($\beta = 0.219$). These things indicate that currently, Vietnamese people use OGB services to purchase products or services mainly based on its usefulness that OGB brings to them (such as enable customers to accomplish shopping and information seeking more quickly than using traditional stores; improve shopping performance (e.g: save time, save money, get the best deal; find more information about a product);

6.2 Conclusion and contribution

The results of this paper enrich my understanding of factors that encourage and impede the purchase intention of adopters of OGB in Vietnam. A key contribution is its establishment of a theoretical model incorporating an integration of the technology acceptance variables, external variable of TAM (service quality and perceived risk) and social influence to investigate the purchase behavior of OGB.

In summary, perceived usefulness in turn was significantly shown to affect users' attitude and customer intention to use OGB to purchase products. Therefore users are most likely to use OGB when they perceive the website as useful for their shopping activities. Furthermore, members are willing to use OGB if they find that it is easy to use. Therefore, online businesses and community providers should focus on designing both useful and easy to use websites and find methods to improve service quality, including but not limited to delivery service, quality of products, warranty and exchange policy in order to create higher OGB intention. Designers should improve the user friendliness of their OGB systems by making them both easier to use and more accessible.

From the results of statistics data analysis, social influence has a significant impact on perceived ease of use and service quality. There is no doubt that OGB behavior is usually coordinated in the virtual communities and users of OGB websites are strongly influenced by the opinions of other members regarding the items they want to buy. They also obtain a great deal of information from the websites, social network or group discussion. Thus, the importance of social influence such as social interactions, social network (i.e., word-of-mouth effect) on both OGB intention and perceived ease of use (such as service process and product/web usage); on OGB intention and service quality should be considered because from the result, the social influence impact on both OGB intention and perceived ease of use. However, there is no effect of social influence on OGB intention and perceived usefulness. Perceived usefulness is believed to belong to personal things; therefore it will not be impacted by social influence. Therefore, it is strongly recommended if the websites vendors would like to sell the products successful by OGB, personalized service, build trust build, prompt responsiveness and feedback mechanisms should be provided in order to enhance perceived usefulness. In addition, websites vendors should focus

more on bringing people together to interact through chat rooms and forums where they can share personal opinions about OGB topics or launch more effective marketing campaigns in mass media, facebook and discussion group.

This study has contributed to existing theories by applying them and verifies their validity. This research is among first studies in Vietnam to investigate the antecedents of OGB intention in general. The results of this study could provide implications for research marketers, OGB platform managers in Vietnam and other Asian countries with cultures similar to Vietnam in creating greater customer satisfaction. It emphasizes importance of marketing tools such as advertisement on social networking sites for e-commerce business in attracting customers' intention. Moreover, the results signify another confirmation for the suitability of the TAM when clarifying social influence.

Most of the respondents in this study are at young age, under 30 years old (more than 79.5 %). However, around 50 per cent of the respondents are company employees with the income less than 9 million VND (approximately 450 USD). These mean OGB attracted many intentions of young people with moderate income. The optimistic signal can enable them to invest big for businesses and opportunity of success is very high because they are ensured by large amount of young people with highly attached with the internet and social network.

6.3 Limitation and further research

The study presented in this paper also has some limitations that call for future research. First this research was conducted in Hanoi and Hochiminh city only; was not representing the wide variety of customers, it only focused on young people, office staff with high education level (mostly got bachelor degree). Also, in process of EFA analysis, some variables measured factors were

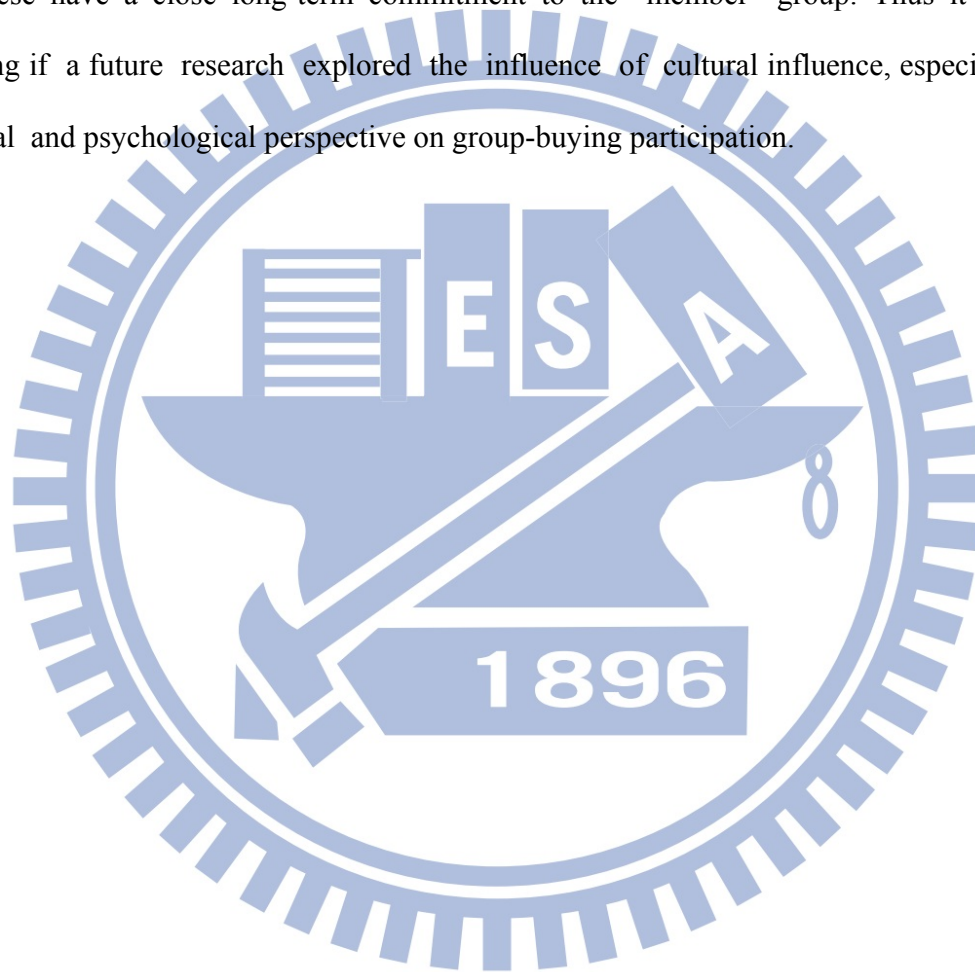
removed due to the small factor loading (smaller than 0.5). It caused the number of variables of each factor reduced significantly. As a result, they may not be used to measure that factor accurately. Thus, researchers may consider the more appropriate variables and do the pilot survey carefully to get the response from respondents more accurately.

Besides, although this study used two phases to investigate the customer attitude and behavioral intention toward OGB, the actual online group-buying behavior, it may become another topic, resulting in the correlation between attitude and intention. We suggest future researches study the effect of TAM model, OGB attitude, and OGB intention to actual OGB behaviors in Vietnam. Moreover, although the author already extended the original TAM model in this study, some other factors that influence Vietnamese consumers' OGB intentions (e.g. culture influence, personal innovativeness, trust, product type, shopping orientation and so on) have not yet investigated which future studies could include. In addition, this study took an approach from the customer point of view in the relationship between supply from group buying sites and customers. It may be interesting to conduct another research with the approach from the OGB vendors' point of view as well to see how much the difference on the relationship strength between the two approaches and if the research model is also valid from the group buying sites point of view.

Besides, from the result, social influence appears to be able to lead to both positive and negative outcomes when it affects the relationship between perceived ease of use and OGB intention, between service quality and OGB intention. Moreover, Min Zhao & Jinhong Xie (2011) found that recommendations from much closer others likely affect near-future preferences more than those from distant others; whereas recommendations from distant others are more effective in changing distant-future preferences than those from close others. Therefore, future research will

be able to develop further the contributions or make the role of social influence more clear, in specific case when the customers approach negative or positive comments or recommendations or consider the effect of near or distant future effect of social influence.

Finally, the author conducted the survey in Vietnam, a collectivistic society. This means Vietnamese have a close long-term commitment to the “member” group. Thus it would be interesting if a future research explored the influence of cultural influence, especially from the social and psychological perspective on group-buying participation.



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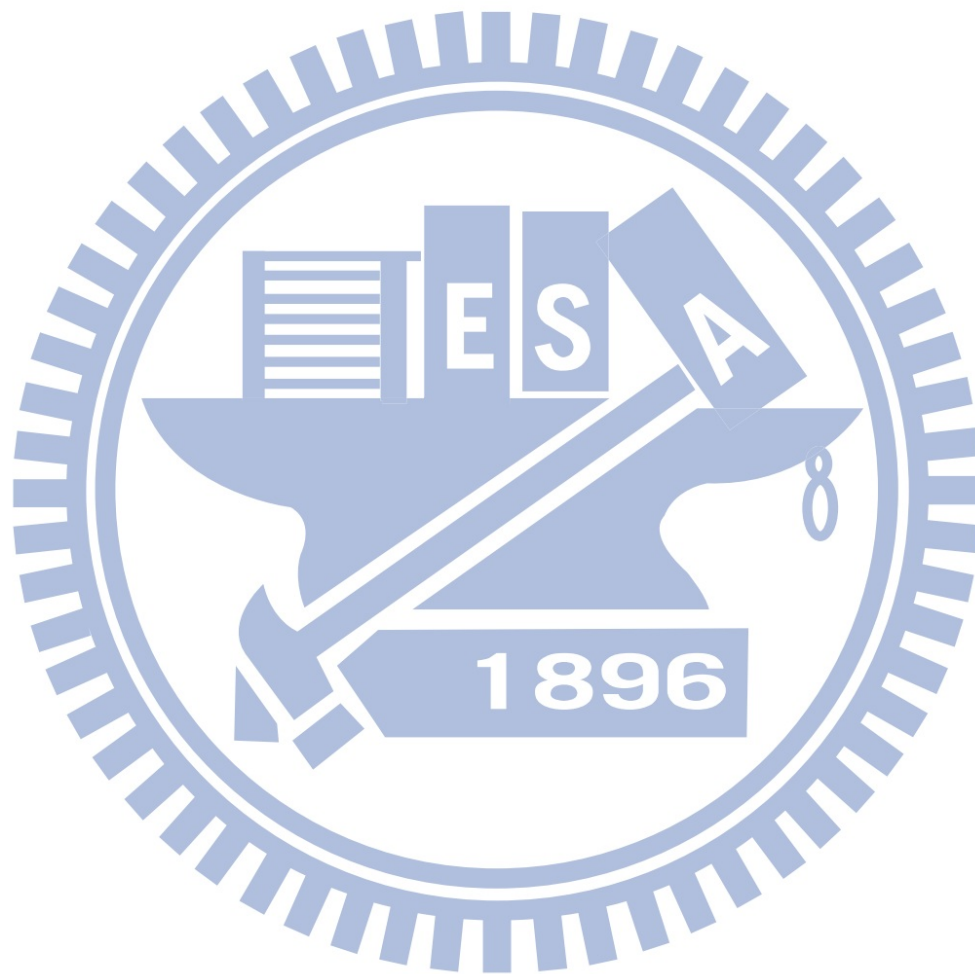
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APPENDIX A –ENGLISH QUESTIONNAIRE

EXPLORING DRIVING FACTORS OF ONLINE GROUP BUYING INTENTION IN VIETNAM

The purpose of this survey is to understand the online grouping buying behavior in Vietnam. We assure that all information gathered from you will be used for academic research, not for commercial purpose. If you have any question, please do not hesitate to contact me by e-mail (phuongnt.iit01g@nctu.edu.tw).

Thank you very much for your corporation!

Nguyen Thanh Phuong

National Chiao Tung University GMBA

Thesis Supervisor: Professor Yingchan Edwin Tang

**OGB refers to the online group buying*

A. Online Group Buying

1. Have you ever used the OGB services?

- Yes (Please continue the questionnaire)
 No (Please refer to questions of Part B and Part C)

2. Which the OGB services have you used?*(You can choose more than one option)*

- | | | | |
|---|--------------------------------------|--|-------------------------------------|
| <input type="checkbox"/> nhommua.com | <input type="checkbox"/> cungmua.com | <input type="checkbox"/> phagia.phunet.com | <input type="checkbox"/> dealsoc.vn |
| <input type="checkbox"/> muachung.vn | <input type="checkbox"/> hotdeal.vn | <input type="checkbox"/> cucre.vn | <input type="checkbox"/> 51deal.vn |
| <input type="checkbox"/> khuyenmaivang.vn | <input type="checkbox"/> dealvip.vn | <input type="checkbox"/> nhanhmua.vn | <input type="checkbox"/> others |

3. How frequently do you use the OGB services?

- Everyday
 2 -3 times/a week
 Once/a week
 Once/a month
 Less than once time/month

4. How frequently do you purchase products from OGB websites?

- 1 time or above/ week
 1 time/ month
 Less than 1 time/a month

5. What kind of products do you usually buy in OGB?

(You can choose more than one option)

- | | | |
|--|---|--|
| <input type="checkbox"/> Cosmetics | <input type="checkbox"/> Electronic appliance | <input type="checkbox"/> Books & stationery |
| <input type="checkbox"/> Healthcare/beauty | <input type="checkbox"/> Home facilities | <input type="checkbox"/> Restaurant (food/drink) |
| <input type="checkbox"/> Clothes & accessories | <input type="checkbox"/> Training courses | <input type="checkbox"/> Toy & baby's stuffs |
| <input type="checkbox"/> Shoes and jewelry | <input type="checkbox"/> Travelling package | <input type="checkbox"/> Others |

B. Statement toward OGB

There are five options for each question to show how far do you agree or disagree with each of the following statement. Please circle one answer for each statement.

	1	2	3	4	5
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
6. Using OGB would enable me to accomplish shopping and information seeking more quickly than using traditional stores.	1	2	3	4	5
7. Using OGB would improve my shopping performance (e.g: save time, get the best deal; find more information about a product).	1	2	3	4	5
8. Using OGB would enhance my effectiveness in shopping (e.g: save money)	1	2	3	4	5
9. Overall I find OGB useful for my shopping activities.	1	2	3	4	5
10. Learning to use OGB is easy for me.	1	2	3	4	5
11. My interaction with OGB is clear and understandable.	1	2	3	4	5
12. Interacting with OGB does not require a lot of my mental effort.	1	2	3	4	5
13. Overall I find OGB is easy to use.	1	2	3	4	5
14. The information provided by OGB websites is accurate.	1	2	3	4	5
15. OGB websites quickly deliver what I order.	1	2	3	4	5
16. The quality of the product I received is the same as what shown on the websites.	1	2	3	4	5
17. Payment method in OGB is simple and convenient for customers.	1	2	3	4	5
18. It is easy to return product after purchasing if it is not appropriate or defective.	1	2	3	4	5
19. Family and friends think that using OGB to buy products is a good idea.	1	2	3	4	5
20. When I use OGB to buy a product, my family and friend's opinions are	1	2	3	4	5

important to me.

- | | | | | | | |
|-----|--|---|---|---|---|---|
| 21. | When I use OGB to buy a product, I am influenced by comments & recommendations posted on OGB website. | 1 | 2 | 3 | 4 | 5 |
| 22. | When I use OGB to buy a product, I am influenced by comments, recommendations posted on social network websites (Facebook, blog etc.) and that posted on group discussion. | 1 | 2 | 3 | 4 | 5 |
| 23. | When I use OGB to buy a product, I am influenced by the number of people who bought the product. | 1 | 2 | 3 | 4 | 5 |
| 24. | When transaction error occurs, I worry that I can lose my money. | 1 | 2 | 3 | 4 | 5 |
| 25. | I am worried that product quality may not meet my expectations. | 1 | 2 | 3 | 4 | 5 |
| 26. | Using OGB is not secured (insecurity of financial transactions). | 1 | 2 | 3 | 4 | 5 |
| 27. | Using OGB can put my personal information at risk. | 1 | 2 | 3 | 4 | 5 |
| 28. | I am worried that I cannot return or exchange the product if it is faulty. | 1 | 2 | 3 | 4 | 5 |
| 29. | The idea of using OGB to buy a product or service is appealing. | 1 | 2 | 3 | 4 | 5 |
| 30. | I prefer to use OGB for my shopping. | 1 | 2 | 3 | 4 | 5 |
| 31. | Using OGB makes it easy for me to find what I want to buy. | 1 | 2 | 3 | 4 | 5 |
| 32. | It is likely that I will try to use OGB to purchase products in near future. | 1 | 2 | 3 | 4 | 5 |
| 33. | It is likely that I will continue to use OGB to purchase products in near future. | 1 | 2 | 3 | 4 | 5 |
| 34. | I will try to use OGB to purchase what I want in near future. | 1 | 2 | 3 | 4 | 5 |

-
- | | | | | | |
|-----|-----------------|--|--------------------------------------|--|--|
| 35. | Gender | <input type="checkbox"/> Male | <input type="checkbox"/> Female | | |
| 36. | Marriage status | <input type="checkbox"/> Single | <input type="checkbox"/> Married | <input type="checkbox"/> Others | |
| 37. | Age (years) | <input type="checkbox"/> ≤ 20 | <input type="checkbox"/> 21-30 | <input type="checkbox"/> 31-45 | <input type="checkbox"/> ≥ 46 |
| 38. | Education | <input type="checkbox"/> Less than diploma | <input type="checkbox"/> Diploma | <input type="checkbox"/> Bachelor | <input type="checkbox"/> Master or above |
| 39. | Occupation | <input type="checkbox"/> Student | <input type="checkbox"/> Employee | <input type="checkbox"/> Manager/above | <input type="checkbox"/> Others |
| 40. | Monthly income | <input type="checkbox"/> ≤ 5 million | <input type="checkbox"/> 6-9 million | <input type="checkbox"/> 10-14 million | <input type="checkbox"/> ≥ 15 |
-

APPENDIX B: VIETNAMESE QUESTIONNAIRE

KHẢO SÁT CÁC YẾU TỐ ẢNH HƯỞNG ĐẾN Ý ĐỊNH MUA SẮM TRÊN CÁC TRANG MUA HÀNG TRỰC TUYẾN THEO NHÓM

Bảng khảo sát này được tạo ra với mục đích tìm hiểu các yếu tố ảnh hưởng đến ý định mua sắm của khách hàng trên các trang mua hàng trực tuyến theo nhóm. Rất mong các bạn chia sẻ suy nghĩ và đóng góp ý kiến cho các vấn đề được nêu ra trong bảng khảo sát dưới đây.

** Trong bảng khảo sát này, MHTN được hiểu là các trang mua hàng trực tuyến theo nhóm.*

Xin chân thành cảm ơn!

Nguyễn Thanh Phương

National Chiao Tung University, GMBA

Giáo sư hướng dẫn: Professor Yingchan Edwin Tang

PHẦN 1: MUA HÀNG TRỰC TUYẾN THEO NHÓM

1. Bạn đã từng sử dụng dịch vụ trên các trang web MHTN?

- Có (Xin vui lòng trả lời tiếp các câu hỏi)
- Chưa (Xin vui lòng trả lời các câu hỏi ở phần B và C)

2. Bạn đã từng sử dụng dịch vụ trên các trang web MHTN nào sau đây?

(Bạn có thể lựa chọn nhiều đáp án)

- | | | | |
|---|--------------------------------------|--|-------------------------------------|
| <input type="checkbox"/> nhommua.com | <input type="checkbox"/> cungmua.com | <input type="checkbox"/> phagia.phunet.com | <input type="checkbox"/> dealsoc.vn |
| <input type="checkbox"/> muachung.vn | <input type="checkbox"/> hotdeal.vn | <input type="checkbox"/> cucre.vn | <input type="checkbox"/> 51deal.vn |
| <input type="checkbox"/> khuyếnmaivang.vn | <input type="checkbox"/> dealvip.vn | <input type="checkbox"/> nhanhmua.vn | <input type="checkbox"/> others |

3. Tần suất bạn truy cập các trang web MHTN?

- Hàng ngày
- 2 -3 lần/ 1 tuần
- 1 lần /1 tuần
- 1 lần /1 tháng
- Ít hơn 1 lần 1 tháng

4. Tần suất Bạn mua hàng trên các trang web MHTN?

- 1 hoặc nhiều hơn 1 lần/1 tuần

1 lần/1 tháng

Ít hơn 1 lần/1 tháng

5. Bạn thường mua loại hàng hóa dịch vụ nào trên các trang MHTN?

(Bạn có thể lựa chọn nhiều đáp án)

Mỹ phẩm

Đồ điện tử

Sách và đồ dùng

Dịch vụ chăm sóc sức khỏe, sắc đẹp

Đồ gia dụng

Thực phẩm

Quần áo và phụ kiện

Các khóa học

Đồ chơi và đồ trẻ con

Giày dép đồ trang sức

Các Tour du lịch

Loại khác

PHẦN B: CÁC PHÁT BIỂU VÀ MỨC ĐỘ ĐỒNG Ý

Anh/Chị vui lòng cho biết mức độ đồng ý của mình đối với các phát biểu bằng cách đánh dấu vào các con số từ 1 đến 5. Vì những mục tiêu nghiên cứu khác nhau nên có thể có những phát biểu gần tương tự nhau; Anh/Chị vui lòng trả lời tất cả các câu hỏi.

1	2	3	4	5
Hoàn toàn không đồng ý	Không đồng ý	Trung lập	Đồng ý	Hoàn toàn đồng ý

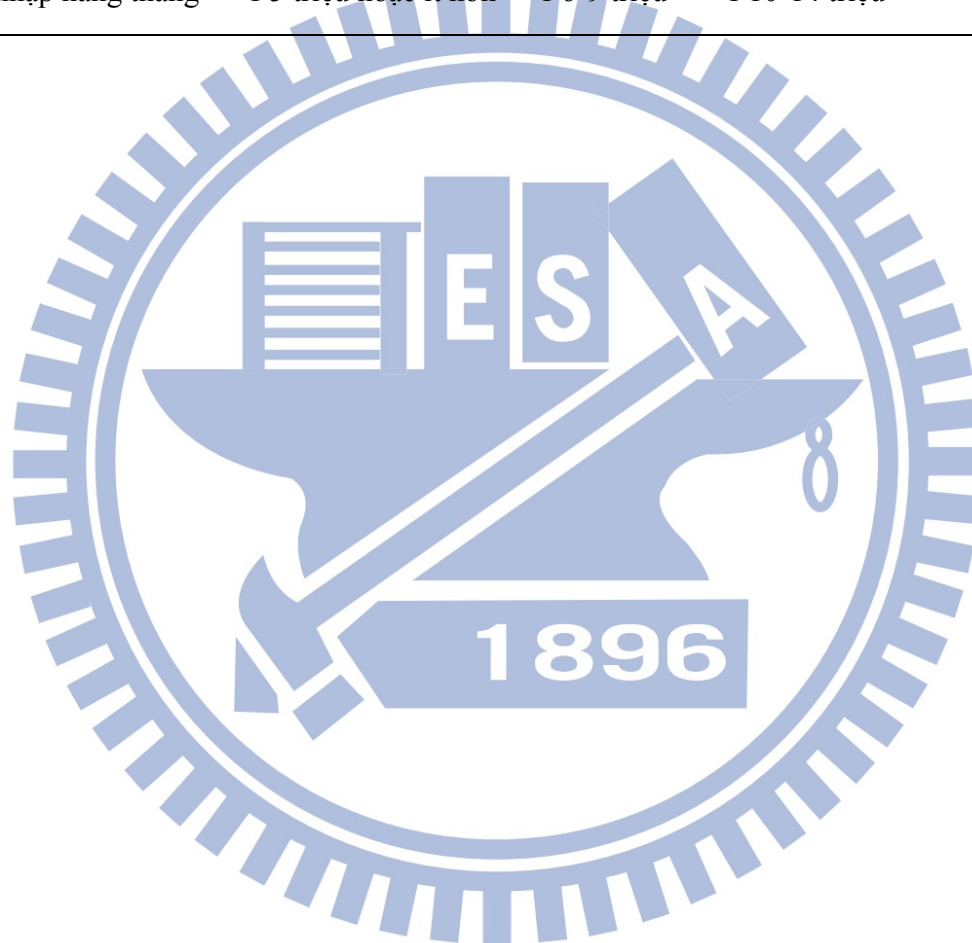
6. MHTN giúp tôi mua sắm và tìm hiểu thông tin nhanh hơn ở các cửa hàng truyền thống.	1	2	3	4	5
7. MHTN giúp tôi nâng cao năng suất mua sắm (tiết kiệm thời gian, tìm được nhiều thông tin về sản phẩm).	1	2	3	4	5
8. MHTN giúp tôi nâng cao hiệu quả mua sắm (tiết kiệm tiền khi mua được sản phẩm giá rẻ).	1	2	3	4	5
9. Nhìn chung sử dụng MHTN hữu ích cho việc mua sắm của tôi.	1	2	3	4	5
10. Tìm hiểu về cách mua sắm trên MHTN khá dễ dàng đối với tôi.	1	2	3	4	5
11. Việc tương tác với các trang MHTN rõ ràng và dễ hiểu.	1	2	3	4	5
12. Việc tương tác với các trang MHTN không đòi hỏi tôi mất nhiều thời gian tư duy.	1	2	3	4	5
13. Nhìn chung việc sử dụng trang MHTN khá dễ dàng đối với tôi.	1	2	3	4	5
14. Các trang MHTN cung cấp thông tin chính xác.	1	2	3	4	5

15. Các trang MHTN cung cấp dịch vụ giao hàng nhanh chóng.	1	2	3	4	5
16. Chất lượng của sản phẩm cung cấp bởi trang MHTN giống như những gì được giới thiệu trên trang web MHTN.	1	2	3	4	5
17. Phương thức thanh toán trên các trang MHTN dễ dàng và thuận tiện.	1	2	3	4	5
18. Tôi dễ dàng hoàn trả lại hàng sau khi mua nếu hàng bị lỗi.	1	2	3	4	5
19. Gia đình và bạn bè tôi cho rằng MHTN là một ý tưởng hay.	1	2	3	4	5
20. Khi tôi mua hàng trên MHTN, ý kiến của gia đình, bạn bè rất quan trọng đối với tôi	1	2	3	4	5
21. Khi tôi mua hàng trên MHTN, ý kiến, nhận xét của người dùng trên các trang MHTN ảnh hưởng đến quyết định mua sắm của tôi.	1	2	3	4	5
22. Khi tôi mua hàng trên trang MHTN, ý kiến, nhận xét trên các trang mạng xã hội (facebook blog v.v) và trên các diễn đàn ảnh hưởng đến quyết định mua sắm của tôi .	1	2	3	4	5
23. Khi tôi mua hàng trên trang MHTN, số lượng người đã mua sản phẩm đó ảnh hưởng đến quyết định mua sắm của tôi.	1	2	3	4	5
24. Khi giao dịch bị lỗi tôi sợ rằng tôi sẽ mất tiền.	1	2	3	4	5
25. Tôi sợ rằng chất lượng sản phẩm hoặc dịch vụ tôi nhận được không như tôi mong đợi.	1	2	3	4	5
26. Tôi cảm thấy không an toàn khi thanh toán trên MHTN.	1	2	3	4	5
27. Thông tin khách hàng có thể không được bảo mật trên các trang MHTN.	1	2	3	4	5
28. Tôi sợ rằng tôi không thể trả hay đổi lại hàng nếu nó có lỗi.	1	2	3	4	5
29. Ý tưởng mua hàng trên các trang MHTN này hấp dẫn tôi.	1	2	3	4	5
30. Tôi thích mua hàng trên các trang MHTN.	1	2	3	4	5
31. Tôi dễ dàng tìm thấy sản phẩm mà tôi muốn mua trên các trang MHTN.	1	2	3	4	5
32. Tôi có thể mua hàng trên các trang MHTN trong tương lai gần.	1	2	3	4	5
33. Tôi có kế hoạch sẽ mua những thứ tôi muốn trên các trang MHTN trong tương lai gần.	1	2	3	4	5
34. Tôi có ý định sẽ mua hàng trên các trang MHTN trong tương lai gần.	1	2	3	4	5

PHẦN C. THÔNG TIN CÁ NHÂN (Xin hãy lựa chọn câu trả lời phù hợp nhất với bạn)

35. Giới tính ⓁNam ⓂNữ

36. Tình trạng hôn nhân	①Độc thân	②Đã kết hôn	③ Khác	
37. Độ tuổi	①20 tuổi hoặc ít hơn	②21-30	③31-45	④Trên 45
38. Trình độ học vấn	① Tốt nghiệp PTTH	② Cao đẳng	③ Cử nhân đại học	④Thạc sĩ hoặc hơn
39. Nghề nghiệp	①Học sinh, sinh viên	②Nhân viên	③Quản lý hoặc hơn	④Nghề nghiệp khác
40. Thu nhập hàng tháng	①5 triệu hoặc ít hơn	②6-9 triệu	③10-14 triệu	④15 triệu hoặc hơn



APPENDIX C: MULTIPLE LINEAR REGRESSION ASSUMPTION TESTING RESULTS

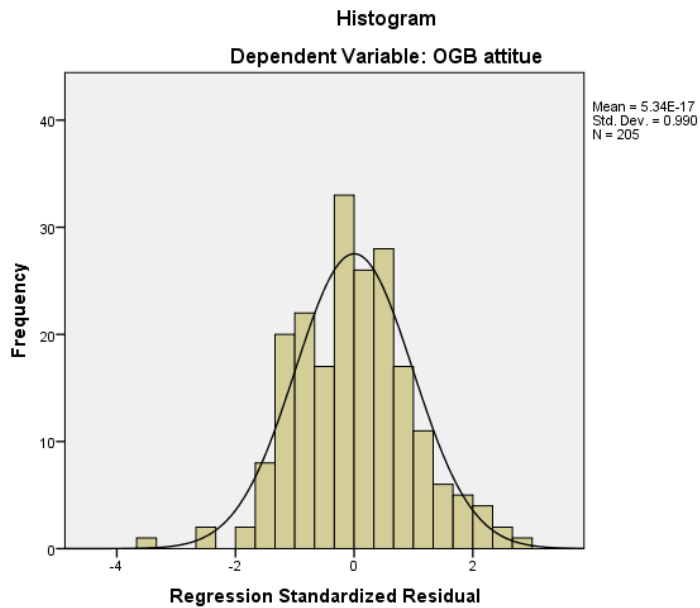


Figure 20: Histogram of OGB attitude variable

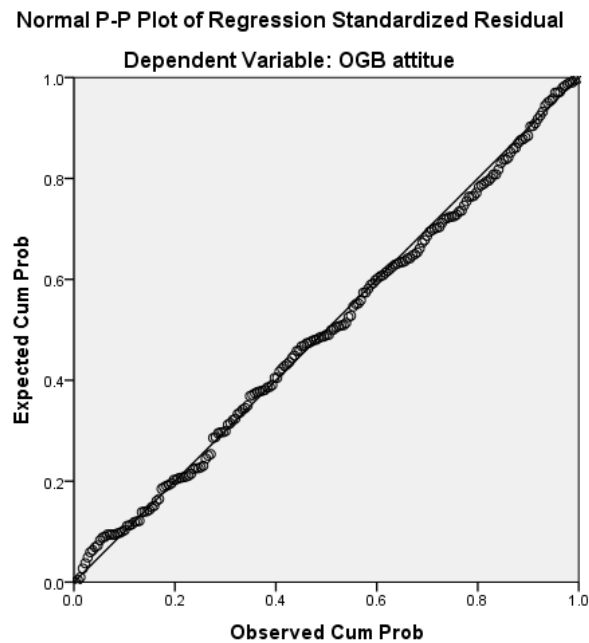


Figure 21: Normal P-P Plot of regression standardized residual for OGB attitude

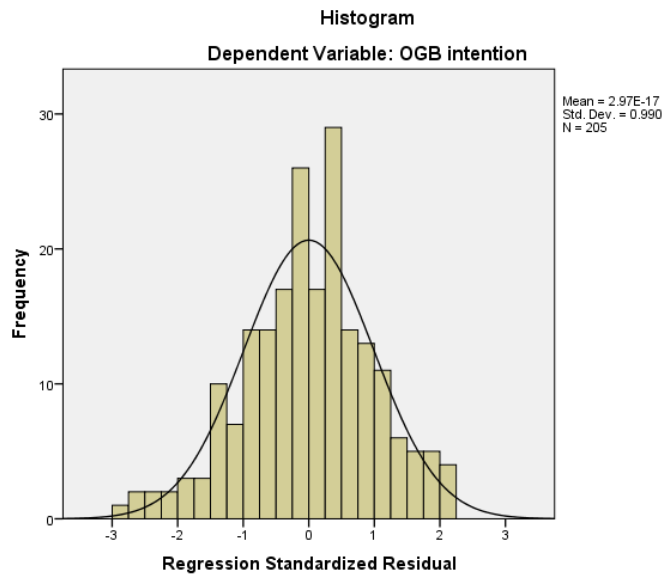


Figure 22: Histogram of OGB intention variable

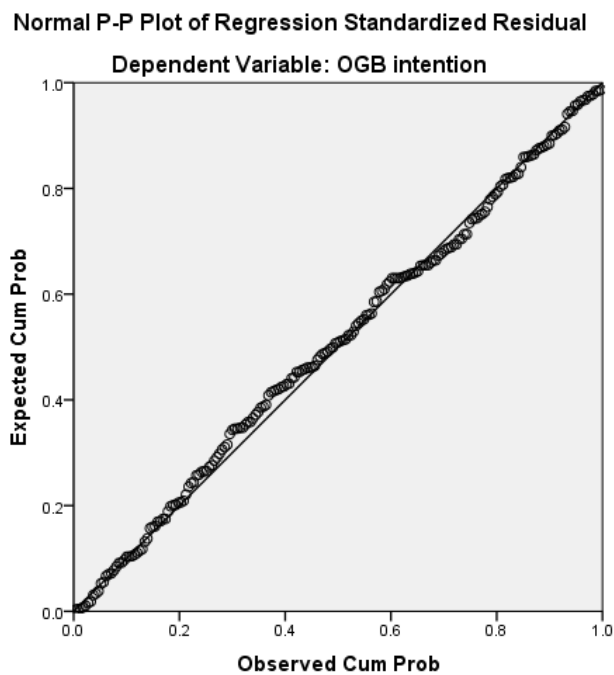


Figure 23: Normal P-P Plot of regression standardized residual for OGB intention

RESUME



Nguyen Thanh Phuong
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Mobile: +886-9-88490469 or +84-9-12444040

Work Experience

April 2010 - Sun Ivy International Inc.
August 2012 - Role: Project Manager

A/ EXTERNAL PROJECTS:

1. *Contact Center and Customer Relationship Management system of Lienvietpostbank*
2. *Design, Supply, Installation, Testing and Commissioning of Danang ICT Transaction Center*
3. *Upgrading Contact Center System of Techcombank- Investment on IT equipment in year 2010*

Job Description: Taking charge on all management and commercial issues related projects as below:

- Overseeing in-department personnel
- Doing problem-solving, balancing resources
- Establishing joint venture partner relationships
- Conducting workshops for knowledge-sharing with colleagues
- Negotiating and following the contract to ensure on due payment collection
- Planning and controlling the 24-hour Emergency Service Support and helpdesk

Skills and achievements acquired:

- Effective time management and multi-tasking
- Project management for delivery of Contact Center projects with multiple and complex deliverables and milestones to a tight schedule
- Flexible in problem resolving, preventing and handling risk

B/ INTERNAL PROJECT: Preparing business plan for CRM Team set-up

Job Description:

- Conducted research CRM market and CRM domestic and international providers
- Negotiated with Splendid to apply for the authorized partner in Vietnam
- Wrote the whole project including external and internal analysis
- Estimated the financial cost and made financial report for setting up the independent CRM team

Skills and achievements acquired:

- Acquiring in-depth knowledge about CRM
- Enhancing researching, writing and analysis abilities
- Revisiting financial knowledge

Nov 2008 –
Mar 2010

Sun Ivy International Inc.

Role: Project Coordinator

Name of projects:

1. *Supplying Optical Groundwires and accessories for 220kV Buon Tua Srah-Dak Nong transmission line of National Power Transmission Corporation*
2. *Supplying ADSS Optical Cable 12F0 with 200m span for the year 2009” of Viettel Group in Vietnam, Vientiane Laos and Cambodia*
3. *Supplying the video conferencing systems for Viettel Group*
4. *Supplying and installing transmission equipments Node B for Northern Area - 3G network - Vinaphone year 2009”*

Job Description: Support the Project team by

- Organizing regular meetings
- Organizing training in project management best practices
- Collecting prioritizing requests from customers and updating company historical data
- Cooperating closely with customers like Viettel Group, Vinaphone, VNPT, EVN. etc. and main suppliers such as Huawei International Pte. Ltd, Avaya, Polycom, Prysmian to match goods delivery and installation schedule

Skills and achievements acquired:

- Strong team building skills
- Abilities to collect information and making reports in a logical and highly organized manner
- Outstanding abilities to adapt to changes, and to new and multicultural environments

Education & Training Background	Sep 2012-Present	Studying Global MBA (Master Degree) at National Chiao Tung University, Taiwan Received the NCTU Outstanding International Student Scholarships Ranked the top 4 in the class
	Feb 2012	Feb 2012: KPS – Certificate of Project Management Professional Examination Preparation of PMI Successfully completed the course : Project Management Professional Examination Preparation
	Dec 2010	Avaya Professional Sales Specialist Training Online course : - Acquired a thorough understanding of Unified Communications, Telephony Systems and Contact Center System of Avaya - Introducing and Guiding sales fundamental steps to configure standard Contact Center system
	2004-2008	Hanoi Foreign Trade University (Vietnam) Bachelor in Business English

Awards	2009	'Woman of Year' award at Sun Ivy International Inc.
	2001	Debate competition for Hanoi high school students on drug addiction and HIV-related issues – Second prize

Extra Activities	2007-2009	Interpreter Vietnamese DEP Magazine (Vietnam's leading lifestyle & fashion magazine)
	March 2008	The 4th International exhibition on shipbuilding, marine technology and transportation at National Convention Center
	2009-2011	Organizer for such events Sun Ivy International Inc. Year End Party Seminar of Avaya, Powerwave, Prysmian suppliers Exhibition Booth in 2011
		Banking Vietnam Exhibition - AVAYA Contact Center Exhibition Telecommunication Exhibition - PRYSMIAN Fiber Cable
	2008	Social activities Participating Community Days of City bank' in Tam Dao province to plant trees to protect environment

Skills and attributes	Personal interests <ul style="list-style-type: none"> • Playing sports & dancing • Watching movies and listening to music • Cooking • Being as a MC role
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Languages

- Mother tongue: Vietnamese
 - English: Fluently
 - Chinese: Basic
-

Other skills

- Fast and effective Internet research skills
 - Good command of Microsoft Office™ tools (Word™, Excel™, PowerPoint™)
 - Excellent presentation and persuasion skills
-

Attributes:

- Excellent teamwork spirit
 - Global market analysis
 - Highly organized and adapt at multi-tasking
 - Analytical, result- oriented, make-it-happen type of people
 - Enthusiastic, open – minded and hardworking
 - Positive attitude, enthusiasm, detail- orientation
-

